THE BRICKBUILDER.

VOL. 14 NOVEMBER 1905 NO. 11

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CONTENTS — LETTER PRESS

CLOISTER OF CHURCH OF SAN DOMINGO, SALAMANCA, SPAIN.

THE BRICKBVILDER

VOL. 14 No. 11 | DEVOTED · TO · THE · INTERESTS · OF ARCHITECTVRE · IN · MATERIALS · OF · CLAY | NOVEMBER 1905

THE BRICKBUILDER.

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THE DUTY OF EVERY ARCHITECT.

AT no time in the history of American architectural effort has there been such an imperative call to architects for union of effort, for a development of true *esprit de corps*, as at present. As the burdens laid upon the profession have increased, as its duties have multiplied and broadened, as more has been demanded of the architect, the greater has been the need for the kind of professional solidarity which has obtained for so many years in the professions of law and medicine. The architect and his work are beginning to be known and appreciated as never before, and it is no longer the case of every man for himself, but there is every evidence to show that architects are expected to pull together, to have common and high professional aims and to be true to their principles.

The remarkable dinner given by the American Institute of Architects at its convention last January brought the profession very prominently and we think very successfully to the immediate attention of those who are most interested in the actual provision for large public buildings, namely, our legislators and political executives. The dinner called together the leading spirits in politics, art, literature and religion, as well as those who, by reason of their large means and public spirit, have become known as public benefactors. The architectural profession, we have no doubt, was by this dinner placed in a new light in the eyes of many of our leaders, who perhaps had previously regarded architects and architecture as only a little removed from the position of a builder and his trade.

There is undoubtedly an aroused interest in architecture as a monumental art. It would be almost impossible for Washington now to go back to the style of work which was the rule not so very long ago; and even those representatives of the people who have been most suspicious of appropriations for public buildings are showing now a disposition to recognize the importance of architecture as a fine art in its relation to our national development, and are willing to accord the architect a greater latitude and a greater respect for his opinions than before. This has come about, we believe, very largely through the efforts of the American Institute of Architects, and we can not too strongly urge the duty and obligation upon all architects who have the welfare of their art at heart of becoming identified with the prime factor which is doing so much to increase the dignity and the effectiveness of the profession.

If architecture is to be in this country what it has been and is now abroad, there must be concerted interests and a unanimity of aim. The public is ready for it, for not only the forces at Washington who were appealed to so strongly at the last dinner, but the leaders throughout all our large cities have awakened to what architecture can be. The conservatism which seems to be so inborn in the profession makes it at times hard for the architect to get out of his shell, to surrender a certain portion of his individuality and to merge into the work of the country as a whole; but this involves no real surrender, but rather an assumption and claiming of what really will make for the best development.

The light of the profession is set on a hill. The public expects architects to write the national history in characters and a style of which no one need be ashamed. We have the talent, the opportunities are being presented on every hand; now it is for the profession to meet them, and meet them in such way that there need be no fear for the results.

Our monumental architecture is just beginning. The development of the country thus far has been most pronouncedly on the commercial side, but with the enormous accumulation of wealth, the dissemination of real culture and appreciation, the twentieth century is bound to be marked by a wealth of monumental architecture, and for the possibilities of such growth the American Institute of Architects is undoubtedly to be credited with the greatest influence.

At its convention in January the Institute will have a dinner on the order of the one which was so successful last year, and the greatest interest will be manifested in its proceedings.

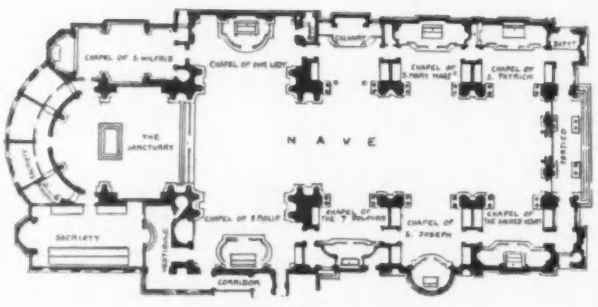
Modern Catholic Church Work in England. I.

BY R. RANDAL PHILLIPS.

ALTHOUGH church planning does not involve so many complexities as obtain in large commercial and municipal buildings, nevertheless, by reason of the inflexible nature of the Roman Catholic ritual, the architect becomes much restricted in his internal arrangements, more especially in those cases where he has been required to produce a church after the model of some old example; yet, on the other hand, in the matter of impressive effect and the rich decoration of the interior, he finds in Roman Catholicism every possible incentive.

In England to-day the architects of any account who are intrusted with the work of the Roman Catholic Church hardly number a dozen. Ireland of course is largely a Roman Catholic country, requiring so many more churches, but the bulk of the work done there is altogether lacking in architectural quality, and may therefore be dismissed from present consideration.

In this article a sharp distinction is made between the work done for the Roman Catholics and that of the High Anglican section of the Church of England, not because there is any such distinct difference between the two in actuality, but for the reason that otherwise one would be drawn into so vast a field as to be quite out of compass here; and, secondly, the writer has confined himself to the period of the last twenty-five years, deeming that to be ample interpretation of the term "modern."



PLAN, BROMPTON ORATORY.

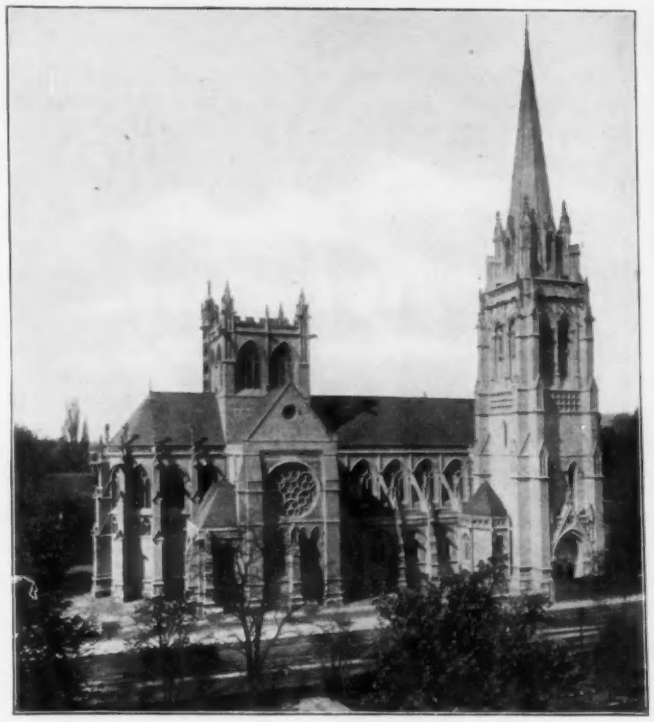
It so happens that the very beginning of the period in question is marked by an important building — the Oratory of St. Philip Neri at Brompton — which serves as an admirable starting point. The building was erected during the years 1880–1884 as the outcome of a

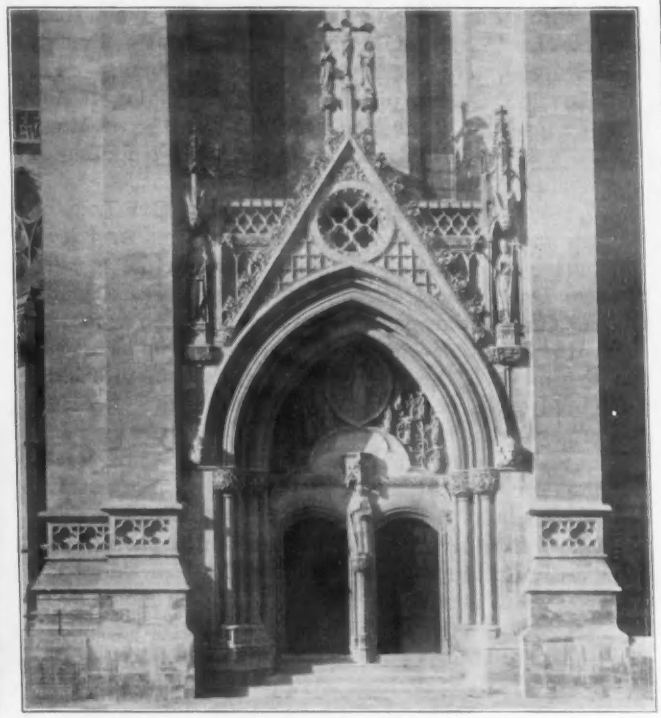
INTERIOR, BROMPTON ORATORY.

BROMPTON OBATORY. H. A. Gribble, Architect.

competition in which there were two-and-twenty competitors, the successful architect being Mr. Herbert A. Gribble. The conditions stipulated that the church was to be of Renaissance style, and that space was to be found for no fewer than nine side altars and twenty confessionals. Under such conditions it is only to be expected that the plan and interior treatment are derived bodily from the Italian churches. The plan comprises a wide nave with chapels on either side, two shallow transepts having a large altar in each, and a sanctuary beyond with ambulatory, chapel and sacristies. The chapels on either side of the nave are 30 feet square and are connected together by openings sufficiently large for processional purposes. The nave is 170 feet long and 51 feet wide, ten feet wider than St. Paul's and fifteen feet wider than Westminster Abbey, and is vaulted over in Portland cement concrete (in the proportion of ten parts of Portland stone chippings of three-quarters inch gauge to two parts of Portland cement). The order is carried at a height of 50 feet on twin Corinthian pilasters of Devonshire marble. Over the crossing is the dome, which gives the building its chief character. This is of 53 feet internal diameter, and is of double construction, the dome proper being of concrete two feet thick at the haunches, and gradually diminishing to one foot at the eye (which is of stone), while the outer shell has a steel framework with wood ribs covered with sixty tons of lead of the finest quality. The height from the ground line to the summit of the cross is 200 feet. The lantern, including the ball and cross, is 47 feet high and the cross itself 6 feet. It should be stated that on the death of the original designer the outer dome was carried out (in 1896) to the drawings of Mr. G. Sherrin. Its general outline most resembles SS. Ambrogio and Carlo at Rome.

Both externally and internally the oratory exhibits





CHURCH OF OUR LADY OF THE ASSUMPTION AND THE ENGLISH MARTYRS, CAMBRIDGE.
Dunn & Hansom, Architects.

INTERIOR, CAMBRIDGE CHURCH.
Dunn & Hansom, Architects.

INTERIOR, CHURCH OF OUR LADY, BOW COMMON.
F. A. Walters, Architect.

the customary treatments to be found in the Renaissance style, with the exception of the dome. The main front suffers from the pedestals which overload the pediment, and exception may be taken to some of the detail, — as in the caps to the nave pilasters and the framing to the altar-piece, — but it must be admitted that the architect made good use of his models and secured a feeling of bigness in the interior.

In 1887–1890 the very large Church of Our Lady of the Assumption and the English Martyrs was erected at Cambridge at a cost of $350,000. The architects were Messrs. Dunn and Hansom, who have designed many churches in different parts of the country, such as that at West Hartlepool, of which a plan is here given as a matter of interest. The Cambridge church is in the Early Decorated style, and consists of nave, chancel, aisles and ante-chapel, with a short tower over the crossing and a massive tower on the north side with spire reaching to 215 feet. Attached to the church is a rectory arranged as an open quadrangle. The building provides sittings for 800 persons, and the interior is particularly noteworthy for the painting on the wall above the chancel arch. This is strongly lighted through the windows in the tower over the crossing and has a striking effect. The elaborate vaulting is also a feature of the interior. The architects, it is evident, have followed closely in the wake of the Gothic imitators, but they have executed their work very skillfully and secured a feeling of height. So far as detail is concerned, the north door is excellent. The design exhibits nothing alarmingly fresh or clever, but the result is undoubtedly successful. There is good proportion in every part of this doorway, and the exuberant detail in crockets, cusps and paneling at once claims attention.

Mr. F. A. Walters is an architect who has done a great deal of very delightful work for the Roman Catholic Church in England. He is here represented by a number of illustrations, all exhibiting much refinement in general feeling and variety in treatment. Let the churches at Bow Common and Mile End Road — in different parts of London — be compared, for example. At Bow Common (1893) special attention is directed to the grille dividing off the chancel. The detail of this is very graceful and vigorous. The rood, too, is finely treated, where it is carried on a beam decorated in color. Of the other churches by Mr. Walters it will suffice to note how uniformly pleasing they are. The convent which he designed for the Gray Friars at Chilworth, Surrey, is particularly successful in its exterior.

With the exception of the chapel, the whole of the buildings of St. Mary's College, Woolhampton, Berks, have been erected since 1885, the latest portions, shown in the accompanying illustration, having been completed in 1895. The college was erected for Catholic educational purposes, and was intended for the reception of boys proposing to follow an ecclesiastical or professional career. The buildings provide accommodation for about one hundred and fifty students, together with the requisite number of professors, and in addition there is a domestic block (to the right) occupied by the matron and servants. The college cost $90,000.

Another Catholic church architect who has done a great deal of excellent work is Mr. Goldie. One of his most important designs is that of St. James', Spanish Place, London (no view of which is included in this article, because permission to sketch or photograph is never granted), but some of his other work is perhaps more interesting — the convent at Hayward's Heath, for instance.

Hawkesyard Priory Church, Staffordshire, is Late Perpendicular in style. It is a collegiate church 120 feet long and 30 feet wide, carried out in brick, with an open hammer-beam roof covered by green slates. The interior is divided into nine bays, with three-light traceried and mullioned windows at the sides and a seven-light window at the west end. At the east end the second and third bays on the south side open into the organ tribune, and in the last bay but one on either side at the west end there are openings into two side chapels, one of which has stone fan vaulting. The nave occupies the four western bays, the three next being devoted to the choir, which is raised three steps above the nave. There are two rows of eleven oak stalls each on either side, canopied, with return oak screens at the entrance to the choir, against which are two small stone altars and reredoses towards the nave. Beyond the choir, and raised another three steps, is the sanctuary, in two eastern bays. This has a beautiful stone reredos the whole width of the church and 30 feet high, with forty-two figures, the space above being frescoed.

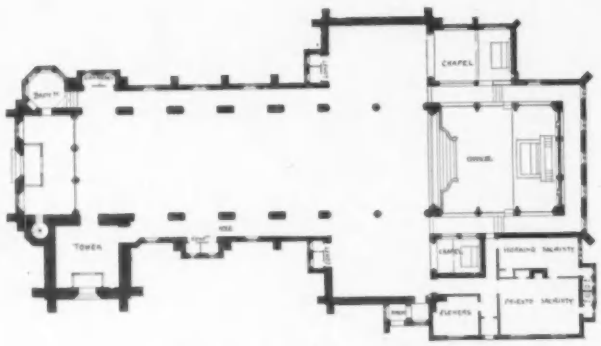
Among other churches by Mr. Goldie are St. Alban's, Blackburn, and churches at Wood Green, Acton, and St. Mary Cray. St. Alban's, Blackburn, accommodates one thousand persons. The little country church at St. Mary Cray in Kent consists of a single nave and chancel. The church of St. Paul, Wood Green, is a cheap church, such as is described as a modern invention, being well built though plain, and making the most of limited funds. The plan needs no comment, being perfectly simple and uniform. That of Our Lady of Lourdes at Acton, however, is very ingeniously contrived.

The Church of St. Ignatius at Stamford Hill, London, is at present only half finished. The west front has yet to be erected, as well as a large college adjoining. Mr. Benedict Williamson, the architect, has endeavored to deal with modern needs and modern materials in the way the mediæval master builder would have done, and to follow the lines laid down at Solesmes. Proportion, boldness of outline and unity of parts have been the chief things aimed at. The arches are all square cut, with no molding to detract from the depth of shadow, while in order to increase the feeling of height the string moldings are stopped against the buttresses, which rise with narrow offsets. In plan the church is cruciform. The total width of nave and aisle is 62 feet, the height to the crown of the nave vault being 54 feet and to the roof ridge 66 feet. The piers supporting the nave arcade are square, with three-quarter shafts. The interior of the church is plastered and the vaults are boarded over. The aisles are divided by arches, in the pilasters supporting which the stations of the Cross are being placed in glass mosaic. The two towers flanking the central portion of the west front will not have portals, as at Amiens, the three doorways being placed centrally, as at Chartres. These towers, though similar in outline, will vary considerably in detail. An interesting feature of the plan is

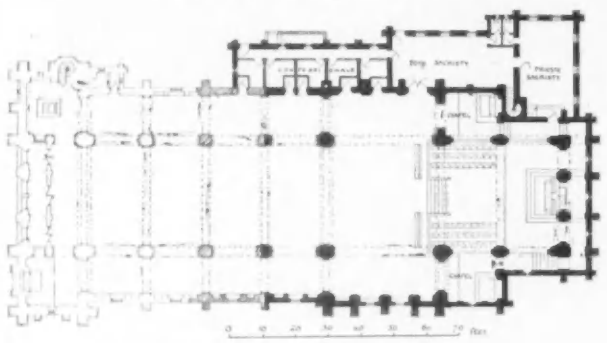
CHAPEL, CHILWORTH, SURREY.
F. A. Walters, Architect.

CHURCH OF THE GUARDIAN ANGELS, MILE END ROAD, LONDON.
F. A. Walters, Architect.

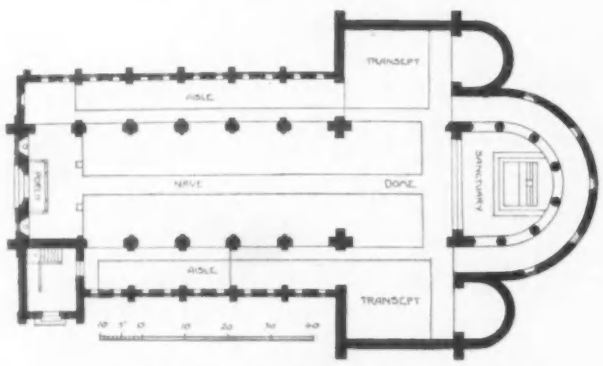
THE CHANCEL, HAWKESYARD PRIORY, STAFFORDSHIRE.
E. Goldie, Architect.



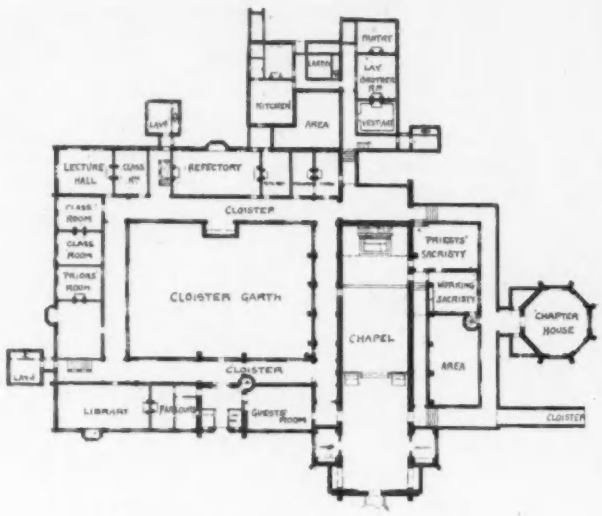
PLAN, ST. ALBAN'S, BLACKBURN.



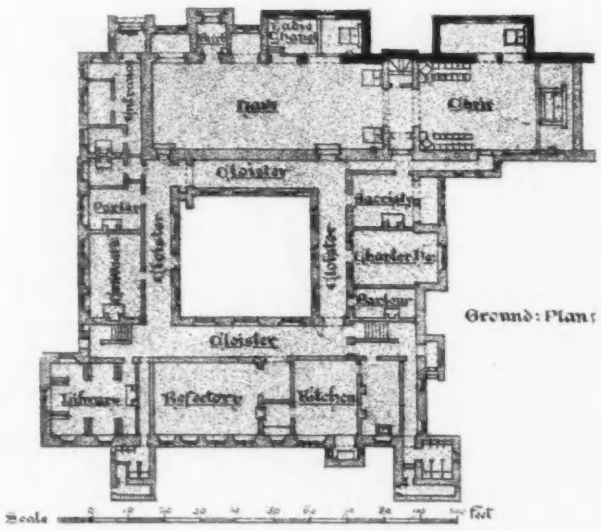
PLAN, ST. IGNATIUS, STAMFORD HILL.
(Part to be erected shown in outline.)



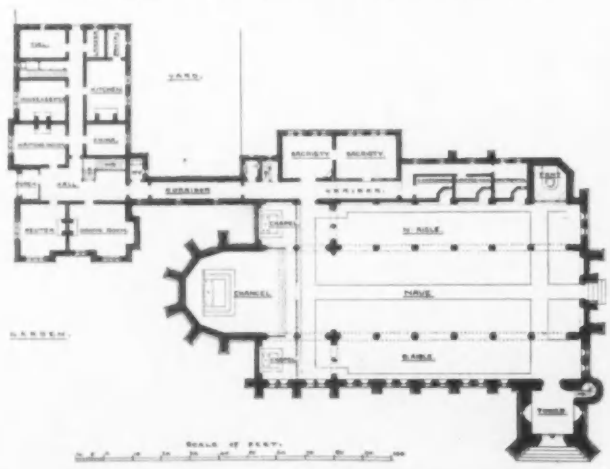
PLAN, ST. PAUL'S, WOOD GREEN, LONDON.



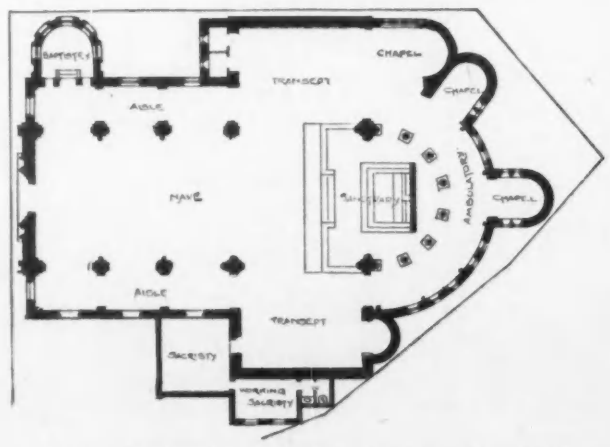
PLAN OF CONVENT, HAYWARD'S HEATH.



PLAN, MONASTERY, CHILWORTH.



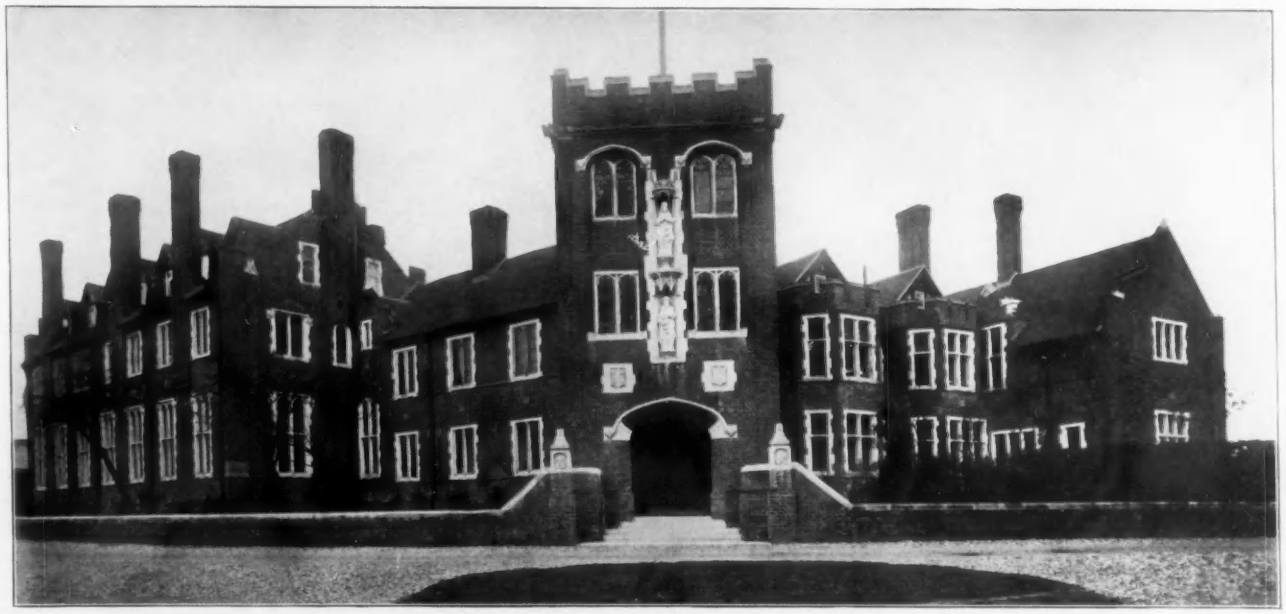
PLAN OF ST. JOSEPH'S, WEST HARTLEPOOL.



PLAN, CHURCH OF OUR LADY OF LOURDES, ACTON.

MONASTERY OF THE GRAY FRIARS, CHILWORTH, SURREY.
F. A. Walters, Architect.

PRIORY OF OUR LADY, HAYWARDS HEATH, SUSSEX.
E. Goldie, Architect.



ST. MARY'S COLLEGE, WOOLHAMPTON, BERKS.
F. A. Walters, Architect.

CHURCH AT ST. MARY CRAY, KENT.
E. Goldie, Architect.

the arrangement of the confessionals, which do not project into the church but are enclosed by a low block which expresses itself on the exterior. It will be observed that the priests enter the confessional by a

PORTION OF ST. IGNATIUS CHURCH.

corridor at the back leading from the sacristy. The floor of the church is of terrazzo with a pleasing pattern of black and white marble on the passageways. An interesting fact in connection with the building is that it is built with two-inch bricks brought from Bruges, the dressings to windows and doors being of Kentish rag stone.

The Church of St. Augustine at Nottingham is to be erected from the designs of Mr. Arthur Marshall,

CHURCH OF ST. AUGUSTINE, NOTTINGHAM.
Arthur Marshall, Architect.

A. R. I. B. A. The general arrangement is shown by the plan, but it may be mentioned that the rapid fall of the street lends itself to the provision of the necessary vestries under the chancel.

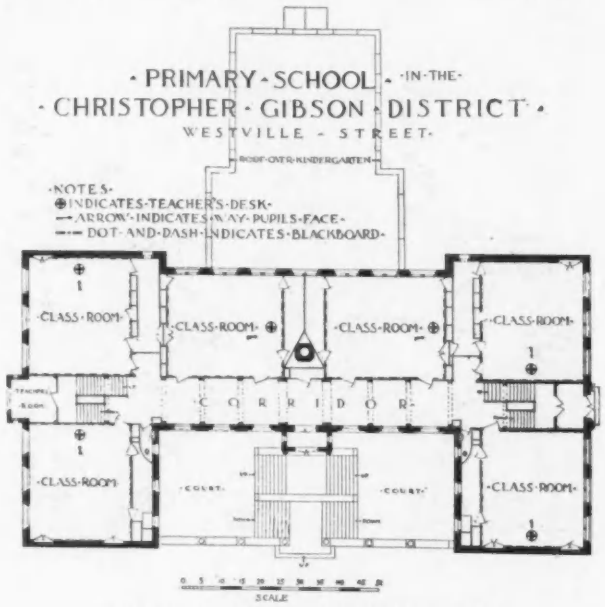
The Work of the Boston Schoolhouse Commission, 1901-1905. II.

STANDARDS OF SIZE AND COST.

DURING the first two years of the Board's work carefully compiled data relating to the schools built by them established what seemed to be fair limits of area, cube and cost for different types of buildings. These were noted at the end of article I and are repeated here in tabular form that they may be held clearly in mind, while we compare the various buildings and see how they agree with or vary from these limits.

PRIMARY SCHOOLS.

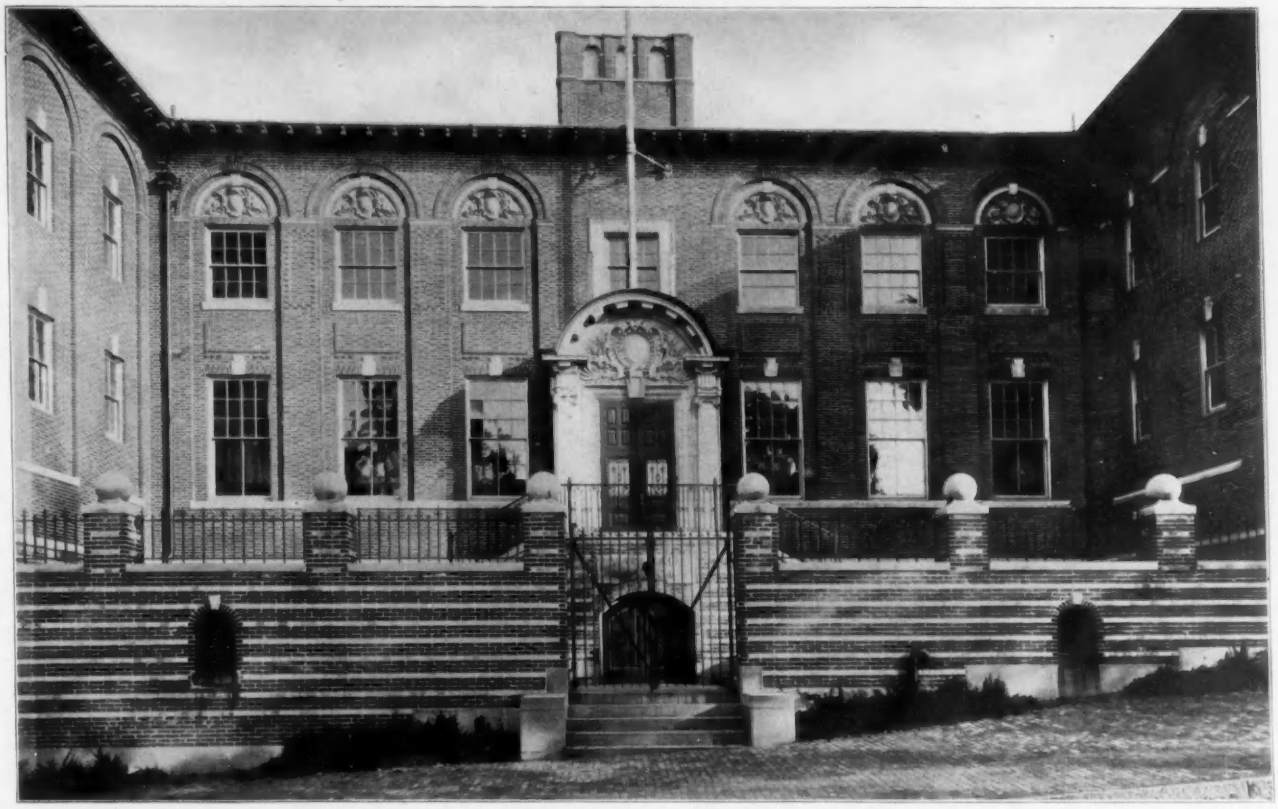
No. of rooms.	Cu. ft. per classroom.	Cost per cu. ft.	Cost per pupil.
Over 14	30,000	$0.22	$132.00
Under 14	35,000	.22	154.00
	GRAMMAR SCHOOLS.		
Over 18	40,000	$0.22	$176.00
Under 18	45,000	.22	198.00

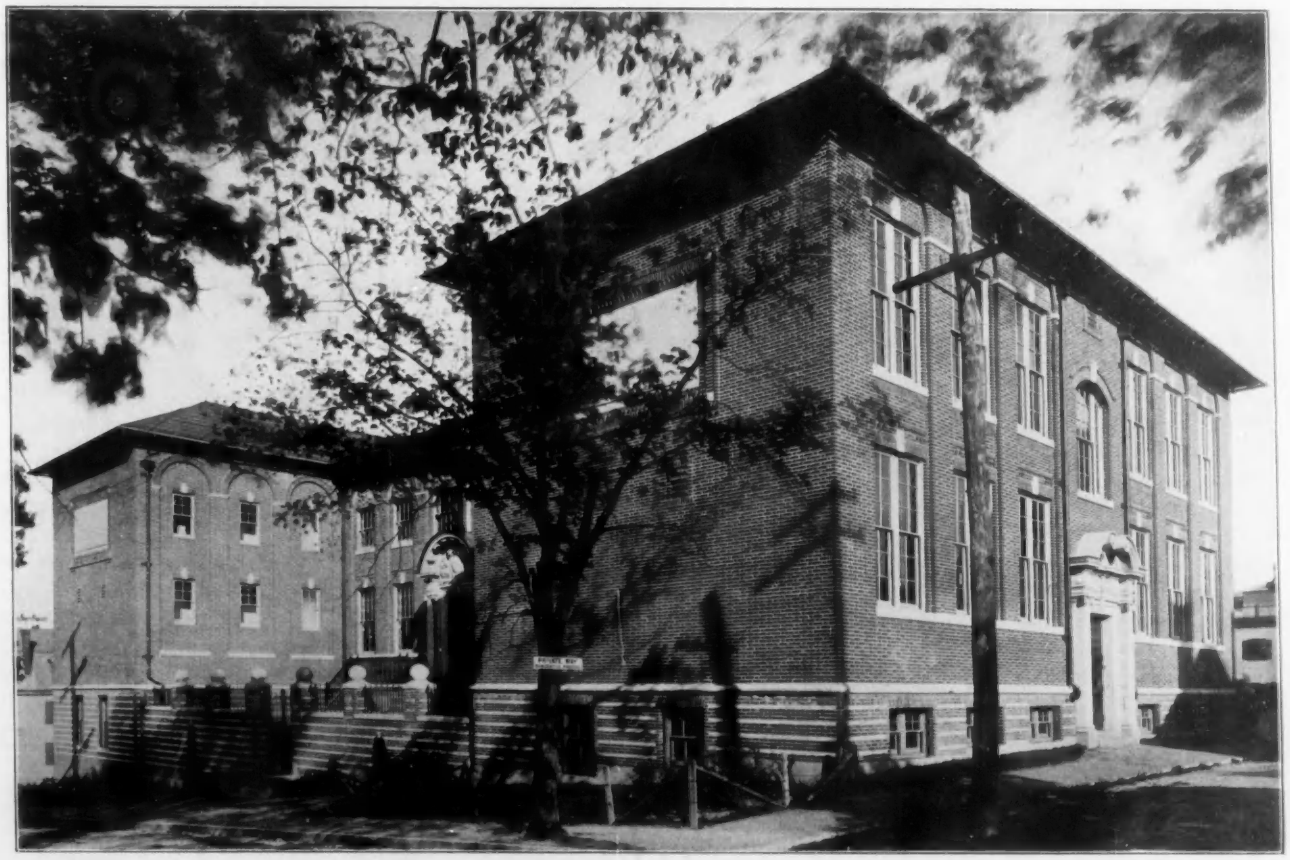


FIRST FLOOR PLAN, MARSHALL SCHOOL.

In both grades it was established during the first year of the Board's existence that an economical plan would show a total area of one floor not exceeding twice the area of the classrooms (measured inside) on that floor. It is natural that in a building with few classrooms the cubical contents per room should be greater than in a building where the somewhat constant cube necessary for the domestic engineering and utilities is divided among a large number of classrooms, and it has been always the experience of the Board that it was more difficult to keep the smaller buildings down to the standard limits of cost set by them than the larger ones. In certain cases, owing to special conditions of site, design or other causes, a building which showed an economical plan and cube has overrun the limit of cost, while on the other hand some buildings which were for one reason or another above the limit set for cube have been built for

NOTE. — The figures in parentheses, given in connection with the titles, are limits set by the Board.





THE MARSHALL SCHOOL.

Primary, Christopher Gibson District, Westville Street and Bowdoin Square.

Maginnis, Walsh & Sullivan, Architects.

14 rooms; 700 pupils. (Kindergarten in addition.)

Cube, 516,624 (490,000). Cost, cubic foot, $0.24 ($0.22). Cost, $124,467.65 ($107,800). Cost per pupil, $177.81 ($154.00).

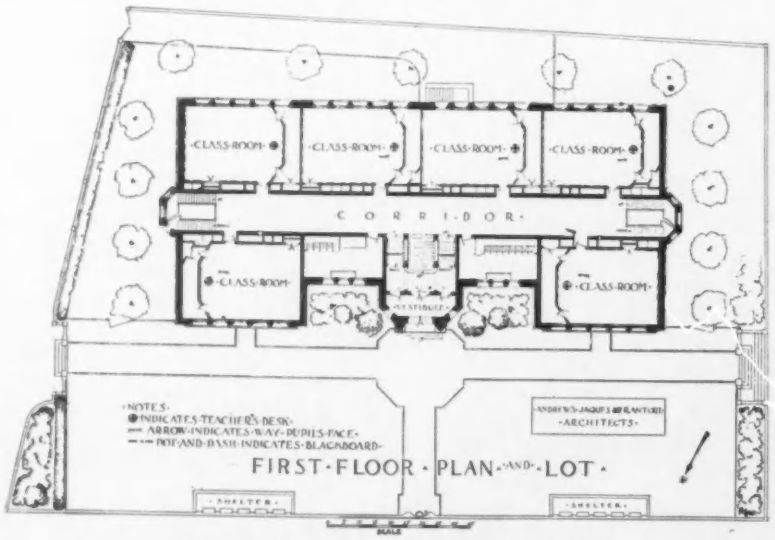
less than the limit of cost; but in general the standards above mentioned, given roughly in the second report (January 31, 1903–February 1, 1904), and more definitely in the third report, have been fairly proved by the schools built up to the present time.

Of the eight primary schools which will be illustrated in this and subsequent papers in this series two, the Whittier and Tuckerman schools, are ten-room buildings, the Ellis Mendell is a twelve-room, the Marshall, Farragut and Mason schools are fourteen-room and the Columbus and Baker schools are twenty-four room buildings. Of the two ten-room buildings both were well under the limits of area and cube, but the one showing the lowest cube (the Tuckerman) cost just over the limit ($77,065.90), while the other, being built for the standard cost per cubit foot (twenty-two cents), was well under the limit of total cost ($77,000), being built for $72,269.70.

DETAIL OF ENTRANCE, ELLIS MENDELL SCHOOL.

The twelve-room building proved expensive owing to variations from the standard type, which increased the cube and cost.

Of the three fourteen-room buildings, the Marshall and Farragut schools were built in 1902 and 1903, the Mason School in 1904–05. The first (the Marshall), a two-story building though rated as a fourteen-room building, has a one-story addition of three rooms for kindergarten, which was responsible for an excessive cost on a fourteen-room basis. If these extra rooms were counted the building would fairly approximate the standard. The Farragut School, owing to great extent to a single unit plan, in which the corridor serves classrooms on one side only, shows an excessive cube and cost. The plan is an unconventional one, determined by a great many considerations, but one which the Board considers it would be unprofitable to repeat. The later building (the Mason), built during the past year, is a three-story building showing an economical plan and cube. The necessity for expensive piled foundations and filling, however, and the complete grading of a lot large enough to contain a second future building forced the price of this contract considerably above the limit.



GROUND FLOOR PLAN, MENDELL SCHOOL.

Of the two twenty-four room buildings one (the Columbus) was built in 1903 and the other is now under construction. Both are three-story buildings. The first was just over the low limit of cube (720,000), having 727,068 cubic feet and the cost being $173,512.08, was about midway between the two limits for primary buildings. The building now under construction, the Baker School, shows an economical plan, a cube (708,607) well under the low limit of 720,000 cubic feet, and is being built for $157,161.93, the low limit of cost being $158,400.

The six grammar schools to be illustrated in these articles vary in size from fourteen rooms to thirty-one rooms, one intended for a twenty-six room building is being only partly constructed at present as a fourteen-room school.

The Perry School, a fourteen-room building, shows an economical area and cube, but owing to the grading of a lot large enough, as in the case of the Mason Primary School, to take a future building, the total cost was forced above the limit of $138,600, it being built for $145,633.23.

The Gardner School, which when completed will be a twenty-six room building, has been built in part and at present rates as a fourteen-room building. The corridors, assembly hall and heating apparatus being installed for a twenty-six room building makes a comparison of this building with a fourteen-room standard unfavorable, and in spite of the fact that its first construc-

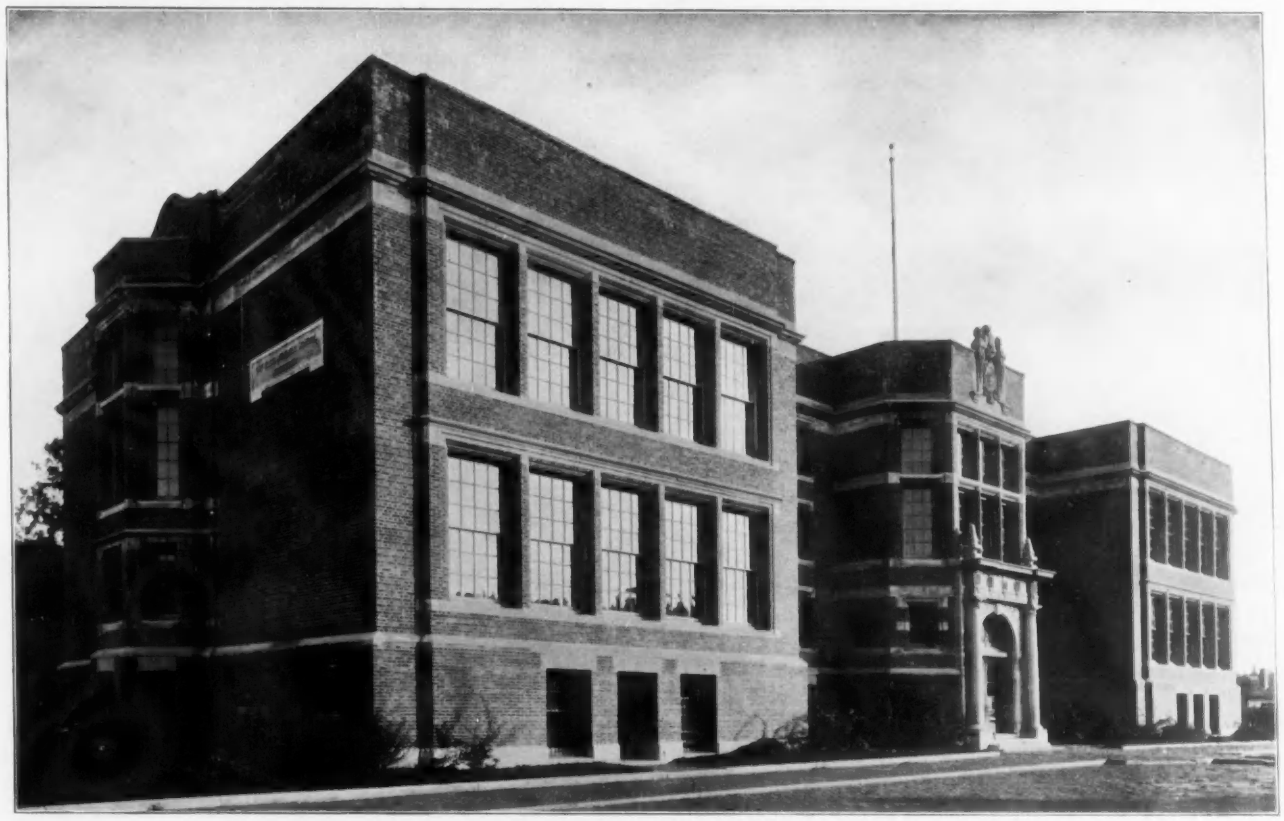
tion was at a rate of nineteen cents per cubic foot, below the standard, its total cost is $142,718.37, the standard limit for fourteen rooms being $138,600. When completed as a twenty-six room school it should prove an economical building.

The Jefferson School, nineteen rooms, the first of these grammar schools to be built, proved a very expensive building. A great deal of blasting was necessary, and this, together with considerable glass and iron exterior wall construction and a somewhat excessive corridor area, contributed to its higher cost. The high limit for this school should have been $180,000, but it cost $210,890.49.

The Dearborn School, twenty-one rooms, not yet completed, shows an economical plan, but it is intended for a thirty-three room building, and the assembly hall and other features, as in the Gardner School, planned for a larger building, make it show large cube and cost on a twenty-one room basis. It will cost $211,308, the low limit for a twenty-one room school being $184,800. When completed it should approximate the standard.

The Oliver Wendell Holmes School, twenty-four rooms, is the most economical grammar school built by the Board. The area is just under the standard proportional limit. Its cube is somewhat in excess of the limit, but it was built at the rate of nineteen cents per cubic foot for a total of $188,326.47. This does not include the entire grading, which could not very well be taken care of while school was going on in the old buildings on the lot. Even with this addition the total would appear to be not over $195,000, the low limit set by the Board being $201,200.

The largest school built by the Board is the Mather School on Meeting House Hill, which has thirty-one classrooms, with an accommodation of fifteen hundred and fifty children. The area shows economical planning according to the standard, but the cube is somewhat excessive, being 1,353,831 cubic feet, the low limit being 1,240,000 cubic feet. The cost was $288,380.46, the low limit being $272,800. Blasting, which extended over a period of five months, and a rather larger amount of stonework than usual contributed to this excess. There is in the basement a future possibility of four more classrooms. If these were completed for $12,000, as noted in the last report, the school would rate as a thirty-five room building, with a cost of approximately $300,000. The low limit of cost for thirty-five rooms would be $308,000, so that with these extra rooms the building would show a very good economy.



THE ELLIS MENDELL SCHOOL.

Primary, George Putman District, School Street, West Roxbury.
Andrews, Jaques & Rantoul, Architects

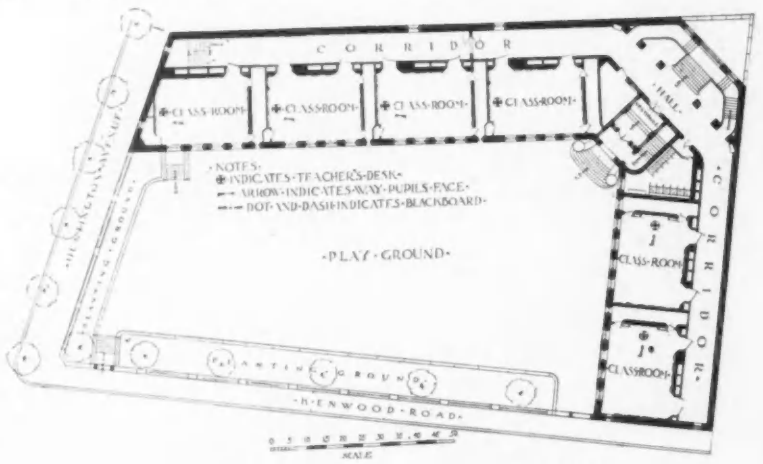
Cube, 517.035 cubic feet (420,000). Cost cubic foot, $0 236 ($0.22).
Cost, $122,267.20 ($92,400). Cost per pupil, $203.78 ($154).

In figuring the cost per pupil the Board takes a unit of fifty pupils to a room. A standard room seats fifty-six, but in many of the large schools there are ungraded and other classes which are even below fifty, and this figure is taken as a fair average. In all cases the cost includes the complete building, with all trades, and all the grading, draining, paving and planting of grounds, in some cases

covering a considerable area. No attempt has been made to separate the cost of the grounds from the cost of the building. In most of the buildings the contracts are divided, and under these circumstances a forfeiture contract is difficult to enforce, and therefore generally unadvisable. In some cases there is a single contract with a forfeiture and bonus clause. In view of the urgent need of new schools the Commissioners have no hesitation in saying that it would be to the advantage of the city if all their contracts were on this basis. A single contractor assumes responsibility for all the trades, and exceptional ability or diligence on his part will earn him a bonus which it is well worth while for the city to pay.

Before considering in detail the plans of the four primary schools illustrated in this number it would be well to mention briefly some of the principles of arrangement approved by the Board.

The accepted theory that two exits are necessary from each room is disregarded, as is the "by-pass" communication from room to room which is so strongly insisted upon by the Massachusetts district police. The Board takes the ground that in the event of fire or panic it is better to have the children trained to go to a well known route of escape rather than to run the risk of having them scatter through the building, using various little known doors and passages. It must be remembered in this connection that the Boston schoolhouses are of fireproof construction. Examination of several plans will also show that it is not considered necessary to keep the main staircases widely separated, and that corridors with "dead ends" are not thought to be a menace to safety. How far the Board may be right in this supposition has yet to appear. It is well known that panic may result from smoke in a fireproof building, and in case of the choking of one staircase by smoke, a by-pass through the building to another distant one might be of incalculable use, and under present day discipline it should not be difficult to conduct the children thither.



GROUND FLOOR PLAN, FARRAGUT SCHOOL.

The wardrobes adjoin, and are entered from the classrooms. When possible they are placed at the end of the classrooms nearest the corridor door and the teacher's desk, so that the pupils will not have to traverse the classroom to reach them, and so that the teacher may have easier control; but this is not considered essential by any means, as several buildings have the wardrobe at the farther end of the classroom. Security of the clothing and other effects of the children is the main object attained by this arrangement. Each wardrobe has an outside window and two doors to the classroom to facilitate filing the children.

Exclusive left-hand lighting of classrooms is generally practised, though not theoretically insisted upon. The Board believe that economy of construction would suggest brick piers between the windows, so spaced as to receive the steel beams, thus avoiding the expense of iron columns, mullions and lintels. The ends of the corner rooms are kept blank and given such architectural treatment as the architects think best. The general policy of the Board is so to arrange the rooms that all shall have direct sunlight during some part of the day.

Electric lighting of classrooms is arranged to give reflected light from the ceiling, which the Commissioners find gives the most equable light and the least trying to the eyes. The engineers of the Board have devised a special fixture which produces good results.

The Board now direct that the toilets shall be grouped in the basement. In one school (the Ellis Mendell) the experiment was tried of separating them on the different floors, but this was found to be expensive and undesirable. The heating apparatus is in the basement, except in special cases where it is put in a sub-basement to free up the basement for playrooms, etc.

In grammar schools the manual training and cooking rooms are in the basement, but they are expected to have as good light as any ordinary classroom, and if in a corner may be lighted from two sides.

The Marshall School.

This is a primary school with a one-story addition, containing three rooms for kindergarten. The land slopes sharply to the east, so that the basement to the south and east is above ground, giving available space for two more classrooms when needed. It is of a conventional type, with two wings extending to the lot line on Westville Street. The court enclosed between the wings is used merely for the steps down to the street, with grass plats beside, the girls' and boys' yards being behind the building and forming an open space, which insures permanent light on the only side of the lot adjoining private property. The basement contains the toilets, the playrooms, the space available for extra classrooms being utilized for additional playrooms and the boiler and coal storage. Each of the floors above has six classrooms. While the main entrance is in the Westville Street court, there are entrances at each stairway at the ends of the corridor. With the exception of the roof frame the construction is first class throughout. The building is heated by steam with gravity return. The ventilating system is also gravity, with a small fan for the kindergarten on account of its low grade. As in all other schools built by the Board this building is wired for electric light, the classrooms being lit by reflected light from the ceiling, as noted above. There is also a system of

electric clocks and bells. In computing the standard cube and cost the two unfinished rooms in the basement are taken into account, and the building is rated as a fourteen-room building. The excess is due to the kindergarten addition.

The Farragut School.

In this school the architects worked on the theory that sun should be excluded from classrooms for the benefit of the eyes. This fact, together with the noise of Huntington Avenue, led them to place the corridor on the two party lines, with the classrooms opening off on only one side and getting ample light across the enclosed playground. This sacrificed some light in the corridors and increased the cube of the building considerably, a fact which was largely responsible for the great cost. The Board now believes that each classroom should have some sun. The basement contains the toilets, small playrooms and a manual training room and cooking school, unusual features in a primary school. The building is therefore considered as a fourteen-room building for comparison with standards, each of the floors above having six rooms. The heating system is low-pressure gravity return. The air is handled by means of a fan, run by an electric motor owing to restrictions of space, with primary and supplementary radiators automatically controlled.

A test of moistening apparatus was made in this building. The main air duct, after leaving the fan, branches to right and left, a branch furnishing the air for each wing. In one branch a shallow pan of water was placed, with submerged brass steam pipes, which when the steam was turned on caused vapor to rise from the water. The air forced over this pan by the fan carried the vapor with it to the rooms. Registering instruments showed thirty per cent to fifty per cent of moisture in this wing, while in the other wing, supplied with air without additional moisture, there was but fifteen per cent to thirty per cent. The natural percentage in summer is sixty-five per cent to seventy per cent. This can be obtained artificially, but in cold weather, if the air is more moist than fifty per cent, the windows may be seriously clouded with vapor.

While the engineers are unable yet to report definite data as to the effect on the building, furniture and pupils and teachers, they observed that a somewhat lower temperature was sufficient in the rooms artificially moistened than in the others, and suggest the indication of a possible saving in fuel.

THE FARRAGUT SCHOOL.
Primary, Martin District, Huntington Avenue and Kenwood Road.
Wheelwright & Haven, Architects.
14 rooms; 700 pupils.
Cube, 652,630 (490,900). Cost cubic foot, $0.23 ($0.22).
Cost, $150,526.43 ($107,800). Cost per pupil, $215 04 ($154).

The Ellis Mendell School.

This school, like the Farragut, has some variations from the conventional plan for the sake of experiment. Instead of being collected in the basement, the toilets are separated and placed on each floor. At either side of the entrance and central stairway the height of the two schoolroom floors is divided into three stories, the upper and lower being used for toilets, the upper being slightly above the level of the second-floor classrooms, while the middle story is used for the teachers' room and storeroom. There are also toilets in the basement, together with the playrooms and heating apparatus. There are two direct entrances to the basement from the playgrounds, which here are not enclosed, but accessible always from a footpath connecting Boylston Place and School Street. These open playgrounds are again an experiment, and it remains

THE SAMUEL W. MASON SCHOOL.

Primary, Hugh O'Brien District, Roxbury, Norfolk Avenue and Clayton Place.
John A. Fox, Architect.

Cube, 438,223 (490,000). Cost cubic foot $0 27 ($0.22).
Cost, $118,851 ($107,800). Cost per pupil, $169 79 ($154).

to be seen whether the city's property will suffer or whether, under proper restrictions, this open space proves the benefit to its neighborhood that might well be expected of it. In connection with these yards the basement of the school, with the playrooms, and even the toilets adjoining, can be left open to the children without giving access to the rest of the building.

The distributed toilets and the third staircase proved expensive features, and the Board have decided not to repeat them.

As to the classrooms, this building conforms to the ideals of the Board, each classroom being arranged so as to have some sun each day, with its wardrobe at the teacher's end of the room, thus giving the greatest control.

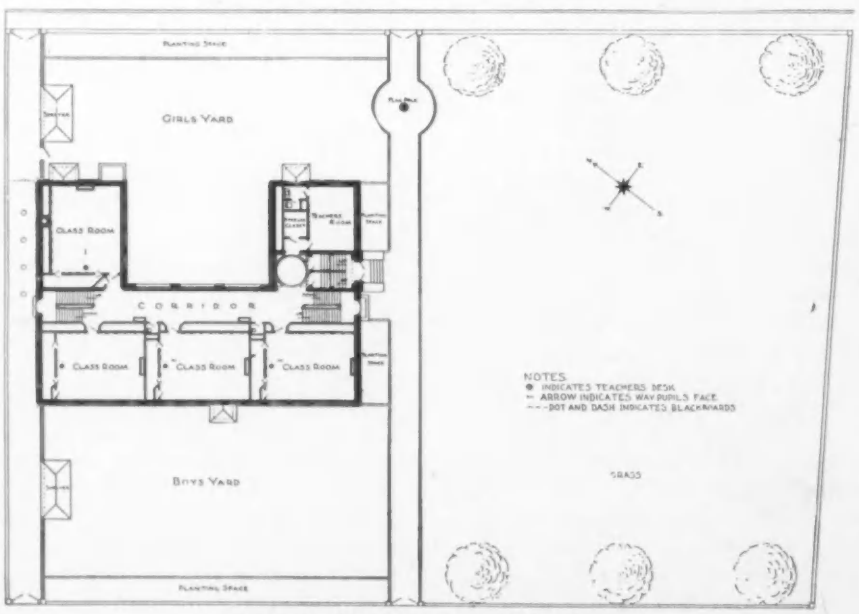
The building is fireproof throughout, with gravity system for heating and ventilating governed by hand controls in each classroom, and furnished with electric light and the usual programme clocks and bells.

The excess in cost is due to the unusual features mentioned and to some extra expense for gates, shelters and drinking fountain which the Board considered was justified by the public nature of the playground.

The Samuel W. Mason School.

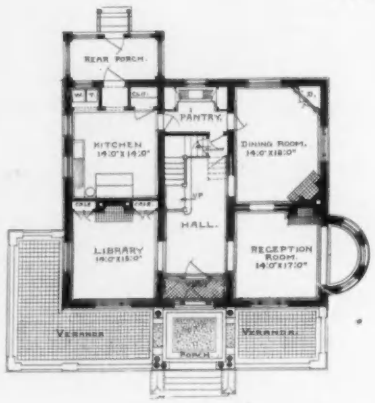
This is a three-story fourteen-room primary school similar in scheme of plan to the Marshall, except that the main entrance is at one side and not in the recessed wall between the wings. The rooms are all arranged with partial southerly exposure and with wardrobes at the teacher's end of the room. The yards are in this case separated, at either side of the building. The basement has the usual playrooms, toilets and heating apparatus, which is similar to that installed in the Ellis Mendell School. The teacher's room and storage room occupy the end of one wing on the first floor instead of being in mezzanines off the stair landing, as in the Marshall.

While this building shows an economical cube, its cost is excessive, the cost per cubic foot being higher than that of any other building the Board has erected. A careful examination of the figures and plans failed to show any extravagance. To test the possible saving between second and first class construction the plans were redrawn to make the building second class above the basement and the four lowest bidders were asked to refigure on this basis. Using the lowest estimates thus procured there was a saving of only 5.42 per cent. The Board decided, in view of the slight saving, to build first class as originally intended, but were able to effect some saving by certain changes in the exterior and yard. As noted before, the excess appears to be due to the grading of a large lot and unusually expensive foundations.

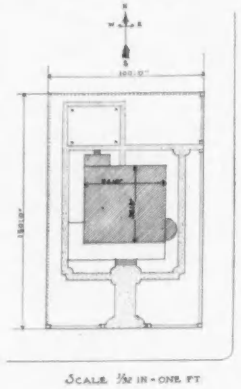


GROUND FLOOR PLAN, MASON SCHOOL.

· BRICK-BVILDER · FIRE-PROOF · HOVSE · COMPETITION ·

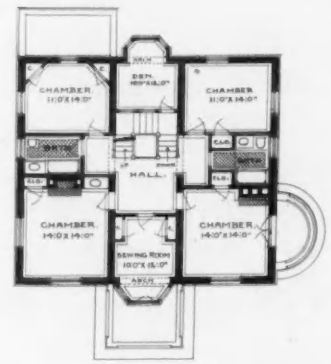


FIRST FLOOR
SCALE ⅛ IN. - 1 FT.



SCALE 1/32 IN. - ONE FT.

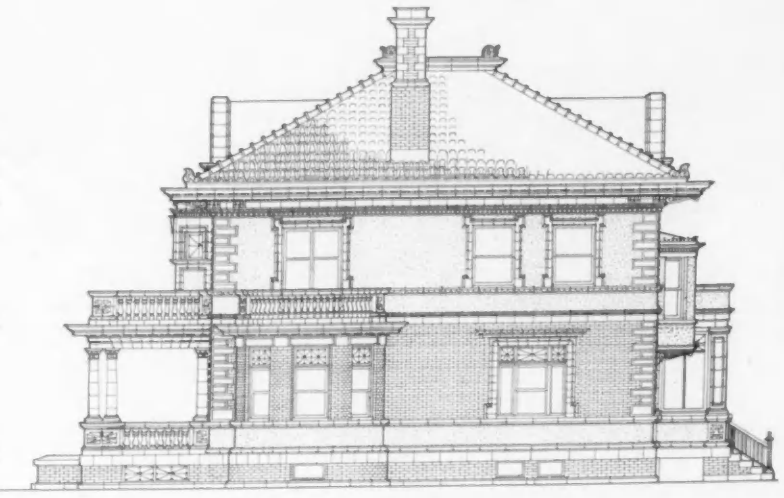
PLOT PLAN



SECOND FLOOR
SCALE ⅛ IN. - 1 FT.

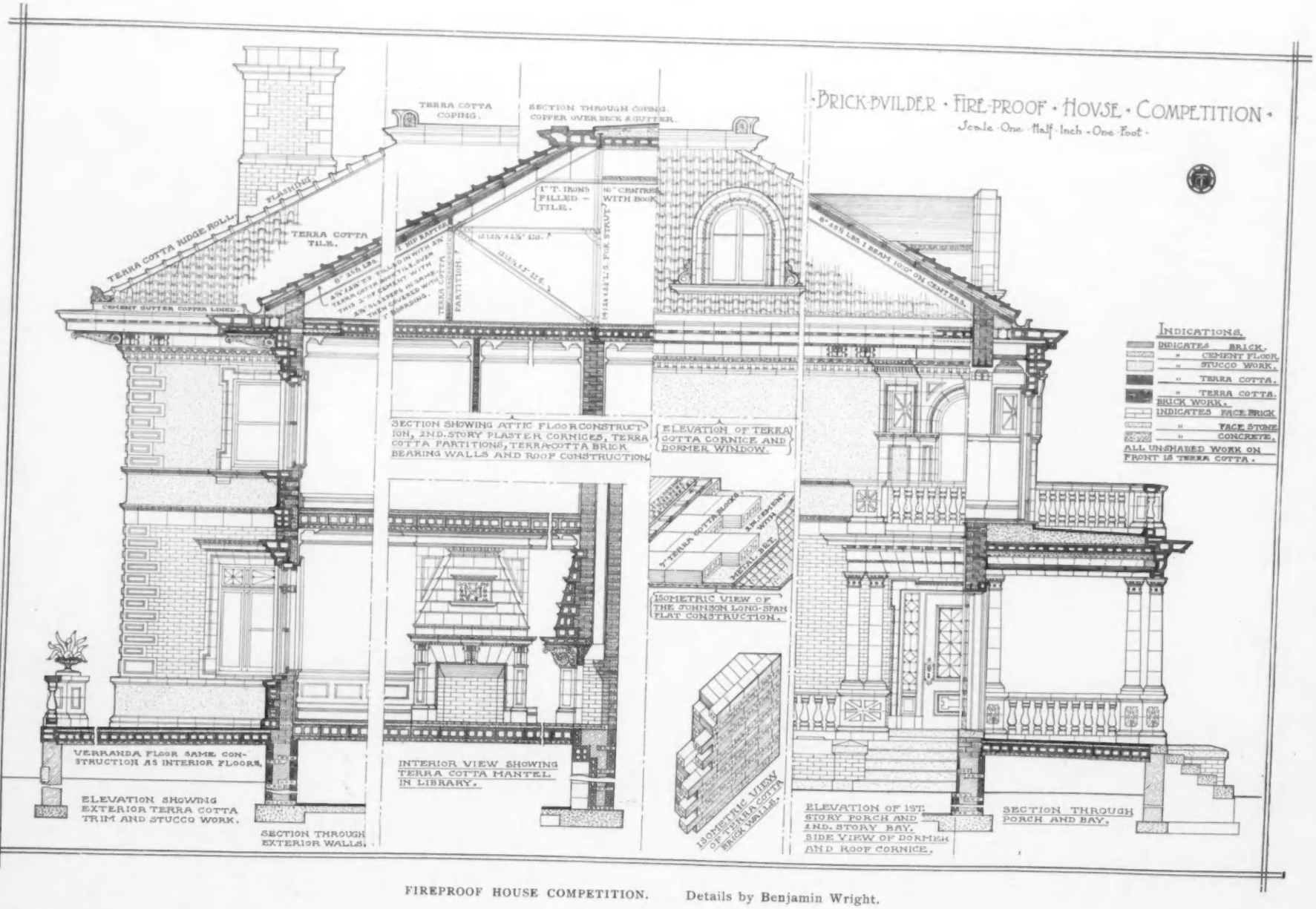
SOVTH ELEVATION

SCALE ¼ IN. - 1 FT.



EAST ELEVATION

FIREPROOF HOUSE COMPETITION.
Design submitted by Benjamin Wright, New York City.



FIREPROOF HOUSE COMPETITION. Details by Benjamin Wright.

Editorial Comment and Selected Miscellany

THE ELECTRICAL FIRE HAZARD.

THE number of fires caused by electricity indicates that in modern fireproofing of buildings the electrical hazard must come in for much more attention, and the reports of insurance inspectors should include somewhat more definitely the actual causes of defective wiring, short-circuiting or imperfect lamp installation. In the recent analysis of some one hundred and forty-five fires reported due to electricity, the relative causes showed that imperfect or careless workmanship of electricians and operators was responsible for many of them, and they were therefore preventable losses. Thirty-three of the fires were attributed to grounding, short-circuiting, defective wiring or to destroyed insulation, while twelve were from defective dynamos and motors through burning out of armatures or field coils. Twenty fires were caused by crossing of telephone or telegraph wires with lighting and power circuits, and five from incandescent lamps being placed too near inflammable material.

In modern fireproof buildings the installation of electric lighting, signaling and telephoning systems is supposed to be so arranged that fires cannot start from any defects in the wires or lamps. The switchboard in particular specifically requires incombustible material. The fireproofing of the dynamo room requires that every part of it should be shut off from the rest of the building by incombustible walls and floors. The floor itself should preferably be of glass, covered with rubber carpet. The complete insulation of the floor then makes the danger from burning coils or armatures practically unimportant, while the danger from short-circuiting of wires is also reduced to a minimum.

DETAIL BY FRANK FREEMAN, ARCHITECT.
Atlantic Terra Cotta Company, Makers.

A frequent cause of fire in the past has been the putting of steam and water pipes near electrical wires and switchboards. The bursting of one of these pipes when close to the electrical switchboard invariably made trouble. The water caused short-circuiting, and slight defects in insulation immediately became apparent.

A modern fireproof building cannot be safe from the fire danger unless the electrical work has been done according to the best standards specified for this class of buildings. Imperfect workmanship is still quite common among electricians, and unless the work is closely inspected at the end the element of danger creeps in.

AN ALTAR PIECE EXECUTED IN ARCHITECTURAL FAIENCE.

By virtue of its peculiar power to start a flame within the walls of a building or behind woodwork in some closet or small room, electricity is one of the hardest fire hazards to deal with, and nothing short of perfect wiring and installation can be accepted as representing even a fair standard of safety. Fire underwriters have insisted upon inflexible observation of rules regarding electric wiring which many electricians have considered unnecessarily severe. The use of flexible cord, for instance, although properly insulated when installed, contains a menace which has been demonstrated in a number of cases. In the last quarterly report of the National Board of Fire Underwriters five fires were reported due to short-circuiting in flexible cords. The primary cause of these fires was further discovered to be due to the abrasion of the cord in contact with metal pipes, or to wrapping the cord around nails and other metal supports. Poor and defective insulation may have in the first place weakened the cord itself, but the proper use of the flexible cord becomes of special importance in view of the dangers thus invited.

In the matter of protecting property from fire caused by electricity, the American Street Railway Association has recently adopted some rules which tend to show a serious appreciation of the danger that lurks in electricity unless guarded at every point by the latest safety appliances. One of these rules is that all switchboard

cabinets shall be inclosed or lined with at least one-eighth of an inch of fire-resisting insulating material, and after being placed in position the inside of the cabinet shall be treated with a waterproof paint. Such protection is considered practically perfect. In a good many buildings where the electrical switchboard is a large one, similar safety appliances might well be adopted. The danger from water in connection with the switchboard is serious unless it is made practically waterproof. Leaking floors and roofs, overflowing faucets in washing and dressing rooms, and the bursting of water pipes through high pressure or freezing is likely at any time to introduce the element of danger in a building.

In the past few months the installation of several large department stores with motor-driven high-pressure fire pumps and sprinklers has reduced the fire hazard to some extent; but the drenching of any floor of a building with water in an emergency where electricity is used freely may cause additional fires unless every part of the system is absolutely water-tight. The motors used in the basement of the stores to operate the high-pressure service are waterproof, and can stand in several inches of water without suffering in any way. They are inclosed, and all connections are carried to them through waterproof pipes. The fields and armature coils are cooled by fans which work on the armature shaft, and every part of the engine room is insulated and fireproofed from all combustible material. Under almost any imaginable conditions such motors should supply a steady pressure of water for standpipes and sprinklers. All that is required to make their service perfect is the absence of defective wiring of the building.

THE COLUMBUS SAVINGS AND TRUST BANK AND OFFICE BUILDING, COLUMBUS OHIO.
Frank L. Packard, Architect.
Exterior Walls and Light Courts faced with "Ironclay" fire-flashed brick. Made by the Ironclay Brick Company.

The crossing of lines in or near buildings so as to cause fires is an inexcusable blunder of engineering, for the danger from such sources is too well known for any one to plead ignorance. And yet in the recent report of the National Board of Fire Underwriters twenty fires were attributed to such causes. In nearly all instances the wires of telephone or telegraph systems were placed too near power and lighting wires, and the short-circuiting which followed proved disastrous. The elimination of this source of danger would greatly reduce the electrical fire hazard, but unfortunately it is a question placed beyond the jurisdiction of the individual builder. He may make his building as near fireproof as modern science can devise, and yet through some outside source the danger may enter the structure. The lighting and power companies in conjunction with the telephone and

DETAIL BY WIDMAN, WALSH & BOISSELIER, ARCHITECTS.
Winkle Terra Cotta Company, Makers.

DETAIL BY CHARLES E. BIRGE, ARCHITFCT.
Conkling-Armstrong Terra Cotta Company, Makers.

DETAIL BY HOLMBOE & LAFFERTY, ARCHITECTS.
Northwestern Terra Cotta Company, Makers.

telegraph companies can alone be held responsible for such conflagrations.

The heat from incandescent lamps has been a prolific source of fire troubles. In spite of past experiences this danger has apparently not been eliminated from such buildings where nearly all other precautions are taken. In factories and warehouses where arc lamps are used, which are admittedly more dangerous than incandescent lamps, fewer accidents happen. The fact that the incandescent lamp is inclosed, and the heat is not so apparent to one, is often the chief trouble; but a heat that may not seriously burn the hand often causes fires when particularly combustible material is placed near it. Thus paper shades have caught fire from incandescent lamps after being used for some time, and this form of protection for the eyes really has its danger. A towel and a handkerchief tied around incandescent lamps became heated and ignited in two different instances, thus starting small fires in apartments. Many such lamps have been placed close to combustible material in the past because of the belief that they were safe. Paper trimmings that did not actually touch the lamps have caught fire, and

TYMPANUM PANEL EXECUTED IN TERRA COTTA BY
PERTH AMBOY TERRA COTTA COMPANY.

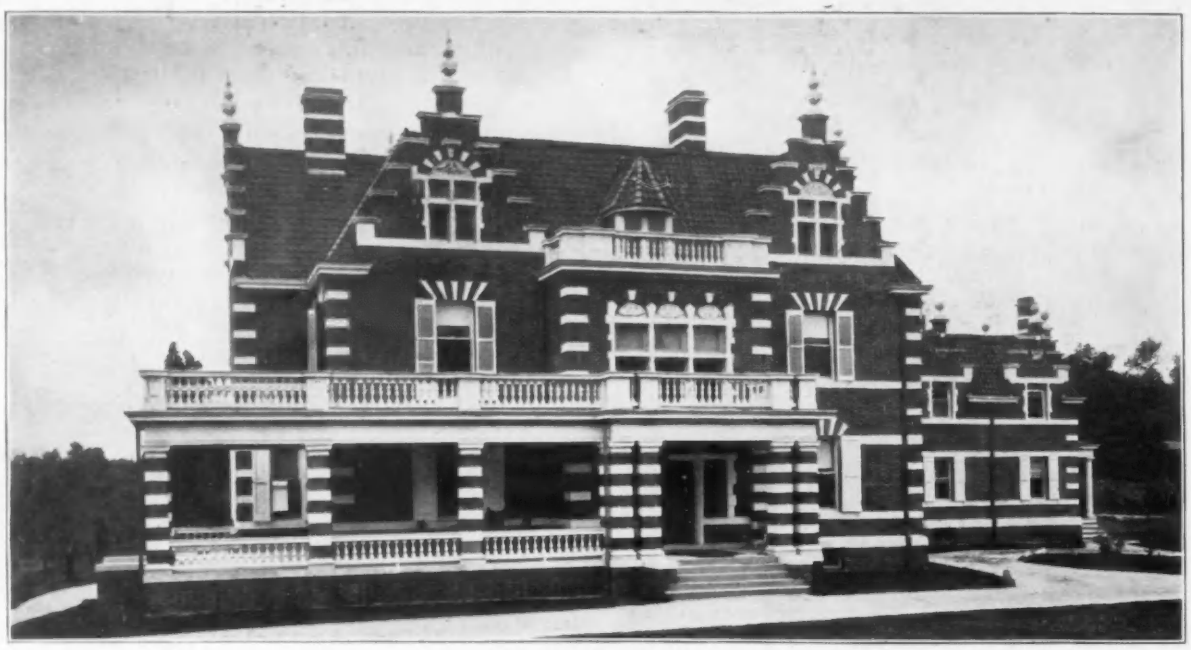
DETAIL BY NEW JERSEY TERRA COTTA COMPANY.

when large lamps have been employed for Christmas tree decorations, contact with loose cotton has in one or two instances started fires. The realization of a danger will go a long way toward averting it, and by appreciating the fact that there is cause for precaution in using incandescent lamps in certain places we may eliminate some fire accidents.

The general popularity of electricity among amateurs is responsible for a number of fire accidents. Not content to experiment with the small batteries used for ringing bells and telephones, many amateurs attempt to make connections with the electric light wires that enter the buildings. Such home-made fixtures invariably invite danger. In many instances the use of electricity by amateurs is on a par with the servant girl's employment of kerosene to start the kitchen fire in the coal range. The fact that more damage is not done in this way is probably due to the Providence which guards the footsteps of drunkards and fools. A case in point recently cited by an insurance inspector was where a defective home-made rheostat ignited the wooden partition to which it was fastened. The whole affair was screwed to a light wooden frame on the wall partition, and the current short-circuiting at the point of contact started a fire that burnt quickly into the wooden partition before it was discovered.

To limit the electrical fire hazard as much as possible a series of experiments was conducted recently to test the power of circuits for breaking down ordinary insulation and the danger that might result therefrom. In nearly all cases the insulation destroyed was found to be defective either in manufacture or by improper use. Good insulating material, properly applied and used, will resist the current for which it is intended, and only defects through improper use or by the short-circuiting of heavy currents on the small wires will cause trouble. The grounding of circuits by the metal work on awnings put up after the building was completed has caused a number of fires, and they should be cited to show that danger from wires does not end after the architect and engineer have completed their labors. Any alterations or im-

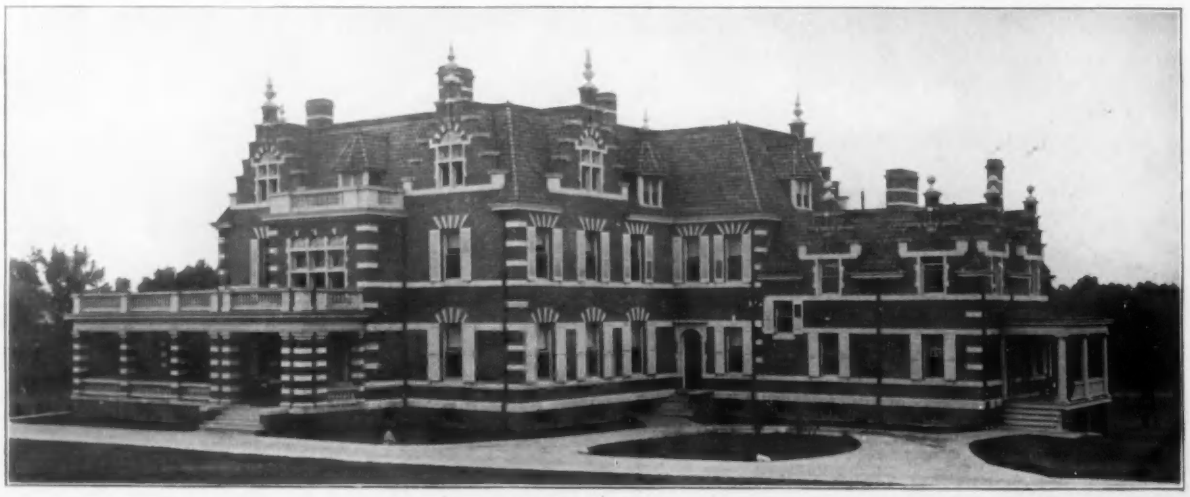
MASONIC TEMPLE, NEWCASTLE, PA.
C. C. & A. L. Thayer, Architects.
Glazed terra cotta by Excelsior Terra Cotta Company.



FRONT ELEVATION.

GATE LODGE.

STABLE.



SIDE ELEVATION.

HOUSE FOR ROBERTS LE BOUTILLIER, ESQ., WAYNE, PA.

Built of Star Colonial brick, with black headers. Trimmed with Excelsior terra cotta, roofed with Bennett roofing tiles, all furnished by O. W. Ketcham, Philadelphia. Built under the direction of Charles P. Palmer.

provements made thereafter must be designed with a full knowledge of the presence of electric wires, and only competent workmen can attend to it. The amateur or unskilled workman can thus come into a building after it has been carefully fireproofed throughout and deliberately, but ignorantly, introduce a fire hazard that will largely nullify much of the careful work of the original contractors.

The burning out of armatures and coils in the basement of modern buildings should no longer be a source of danger. So well understood is the engineering necessary to make such rooms fireproof that ignorance is no longer excusable. Where such dynamos and motors are not properly protected and insulated from all surrounding inflammable material the matter should receive the attention of authorities higher up. Many of the earlier installations of electrical equipments are not provided with the protective appliances adopted to-day, but they can be brought up to date so that the element of danger is reduced to nearly the vanishing point. The electrical fire hazard can in this way gradually be limited so that it will no longer stand as a menace to modern buildings and homes.

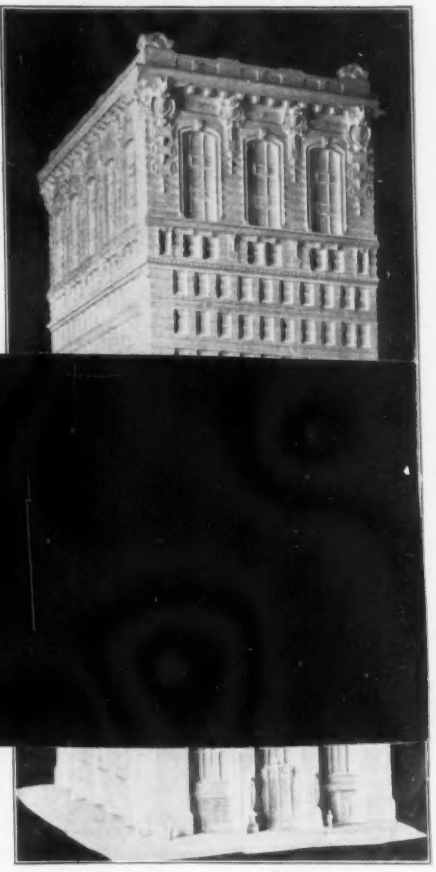
DETAIL BY GUSTAVE DRACH, ARCHITECT.
Indianapolis Terra Cotta Co., Makers.

EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK.

THE Twenty-first Annual Exhibition of the Architectural League of New York will be held in the building of the American Fine Arts Society, 215 West 57th Street, February 4 to 24 inclusive. January 6 is the last day on which architectural exhibits will be received. Exhibits will be discharged February 26.

SCHOOLHOUSE AT MADISONVILLE, OHIO.
S. Hannaford & Sons, Architects.
Roofed with American S tiles made by Cincinnati Roofing Tile and Terra Cotta Company.

The subject for the Medal Competition this year is a small chapel to St. Peter, to be built on a rocky promontory overlooking the sea. Competitors must be residents of the United States [illegible] drinking fountain in a city street.



MODEL OF THE NEW AMERICAN TRUST BUILDING, CHICAGO.
Jarvis Hunt, Architect.
To be fireproofed with the "Standard" system.
National Fireproofing Company, Makers.

IN GENERAL.

Horace S. Powers is now associated with Robert C. Spencer, Jr., in the practice of architecture under the firm name of Spencer & Powers. Offices, Steinway Hall, Chicago.

Architects Shollar & Hersh, Altoona, Pa., have taken new offices in the Altoona Trust Building.

A. P. Valentine, Jr., architect, Philadelphia, Pa., for the past six years connected with the government service at the Navy Yard, League Island, Pa., has resigned therefrom to accept the position of assistant structural engineer in the Bureau of Building Inspection, Philadelphia, Pa. This and other recent appointments in that bureau have been made as the result of open competitive examinations conducted by the reorganized Civil Service Examining Board of the municipality.

Herbert M. Baer, architect, has taken offices at No. 15 Cortlandt Street, New York City. Manufacturers' catalogues and samples desired.

The Washington Architectural Club has issued its syllabus for 1905–1906, from which it is evident that this body is alive to the awakened interest which is everywhere manifesting itself in connection with architecture.

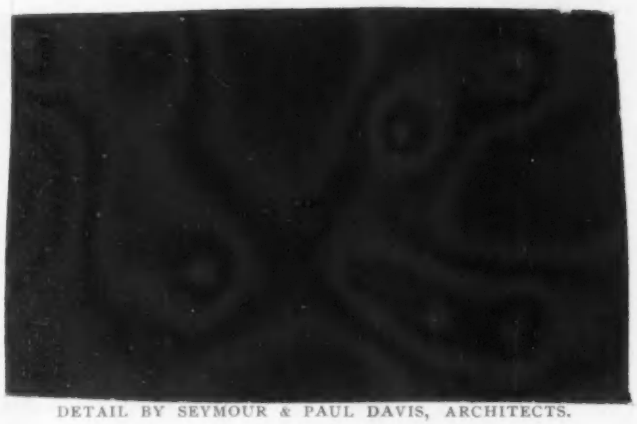
Cabot's Red Brick Preservative has been used extensively upon the buildings of the National Cash Register Company, Dayton, Ohio, for restoring the original flat, brick-red tone of the bricks, and making them perma-

nently waterproof. This company also uses Cabot's shingle stains upon its frame buildings.

The Tiffany Enameled Brick Company will supply forty thousand of their bricks for the new power house of the Commonwealth Electric Company of Chicago.

Celadon roofing tile will be used on the following new buildings: Large power house at Lockport, Ill., for the Sanitary District Canal Commission of Chicago, Isham Randolph, chief engineer. Lawrence Avenue Pumping Station, Chicago. A new laboratory for the Case School of Applied Science, Cleveland; and the new Carnegie Library at Cincinnati. Their new "Imperial Spanish" tile will be used on the latter building.

The new McCreery departmental store, which extends from 34th Street to 35th Street, New York City, Hale & Rogers, architects, will be fireproofed throughout with Standard twelve-inch arches, furnished by the National Fireproofing Company.



DETAIL BY SEYMOUR & PAUL DAVIS, ARCHITECTS.
New York Architectural Terra Cotta Company, Makers.

DETAIL BY LOUIS CURTIS, ARCHITECT.
St. Louis Terra Cotta Company, Makers.

WANTED — In the office of a Detroit architect, a draughtsman familiar with the principles of Renaissance in composition, ornament and color. One who is a good colorist and a graduate of the M. I. T. preferred. Address with particulars, M. I. T., care of "The Brickbuilder."

WANTED — To handle account of some good corporation doing business with architects, engineers and contractors, on either a salary or commission basis. Extensive acquaintance west of Missouri River, including California and the Northwest. Present location Denver, Col. Best of references. Correspondence solicited. Address "Salesman," care of "The Brickbuilder."

COMPETITION FOR AN OFFICE BUILDING

First Prize, $500 ***Second Prize, $200*** ***Third Prize, $100***

COMPETITION CLOSES DECEMBER 23, 1905

PROGRAMME

THE problem is an Office Building. The location may be assumed in any city of the United States. The site is at the corner of two streets of equal importance. The lot itself is perfectly level. The size of building is 80 feet square on the ground and 120 feet high. Number of stories left to the designer.

Above a base course of granite (not over 2 feet high) the exterior of the building is to be designed entirely in Architectural Terra Cotta.

For the reason that colored terra cotta is likely to be used extensively in the facades of buildings, it is desired that a color scheme shall be indicated either by a key or a series of notes, printed in the lower right-hand corner of the sheet of details at a size which will permit of two-thirds reduction.

The following points must be considered in the design:

A. Frank and logical expression of the prescribed material.
B. Rational and logical treatment of the architectural problem.

In awarding the prizes the intelligence shown in the constructive use of terra cotta and the development or modification of style, by reason of the material, will be taken largely into consideration.

It must be borne in mind that one of the chief objects of this competition is to encourage the study of the use of architectural terra cotta. There is no limitation of cost, but the designs must be suitable for the character of the building and for the material in which it is to be executed.

The details should indicate in a general manner the jointing of the terra cotta and the sizes of the blocks.

Drawings Required

On one sheet the front elevation drawn at a scale of 4 feet to the inch, and on the same sheet the perpendicular section of the front wall.

On a second sheet, half-inch scale elevations and sections of main entrance and any other portions of the building necessary to interpret the design, including a portion of upper stories and main cornice.

In the lower left-hand corner of the second sheet is to be shown the first and typical floor plans at a scale of 16 feet to the inch. The first floor plan may provide offices for a bank or insurance company. The main entrance corridor and location of the elevators should also be shown.

The size of each sheet (there are to be but two) shall be 24 inches by 36 inches.

The sheets are not to be mounted.

All drawings are to be in black ink without wash or color, except that the walls on the plans and in the sections may be blacked-in or cross-hatched.

Graphic scales to be on all drawings.

Every set of drawings is to be signed by a *nom de plume* or device, and accompanying same is to be a sealed envelope with the *nom de plume* on the exterior and containing the true name and address of the contestant.

The drawings are to be delivered flat at the office of THE BRICKBUILDER, 85 Water Street, Boston, Mass., charges prepaid, on or before December 23, 1905.

The prize drawings are to become the property of THE BRICKBUILDER, and the right is reserved to publish or exhibit any or all of the others. Those who wish their drawings returned may have them by enclosing in the sealed envelopes containing their names ten cents in stamps.

The designs will be judged by three well-known members of the architectural profession.

For the design placed first in this competition there will be given a prize of $500.
For the design placed second a prize of $200.
For the design placed third a prize of $100.

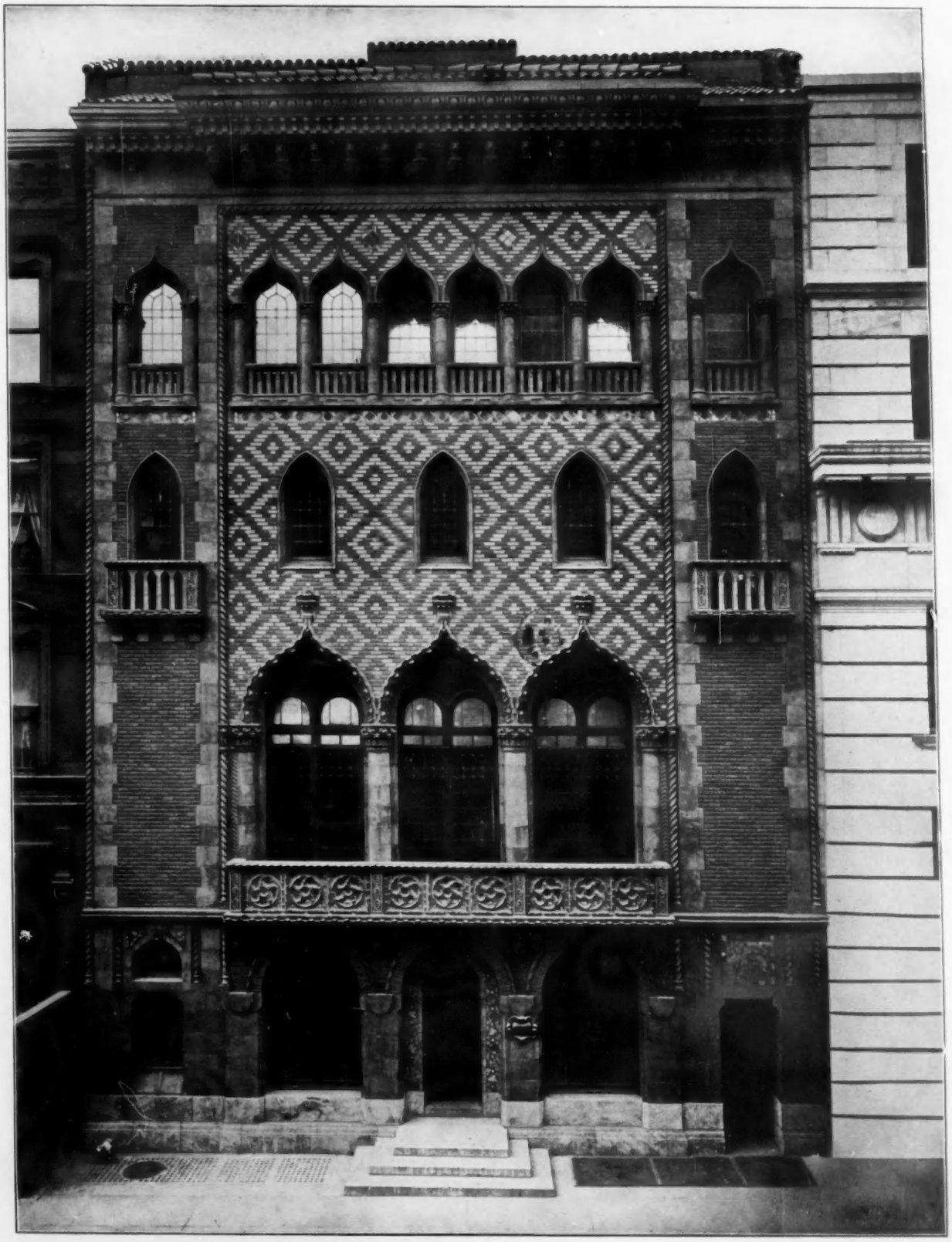
We are enabled to offer prizes of the above mentioned amounts largely through the liberality of the terra cotta manufacturers who are represented in the advertising columns of THE BRICKBUILDER.

This competition is open to every one.

ROGERS & MANSON, BOSTON

THE BERKELEY PUBLIC LIBRARY, BERKELEY, CAL.

JOHN GALEN HOWARD, ARCHITECT.



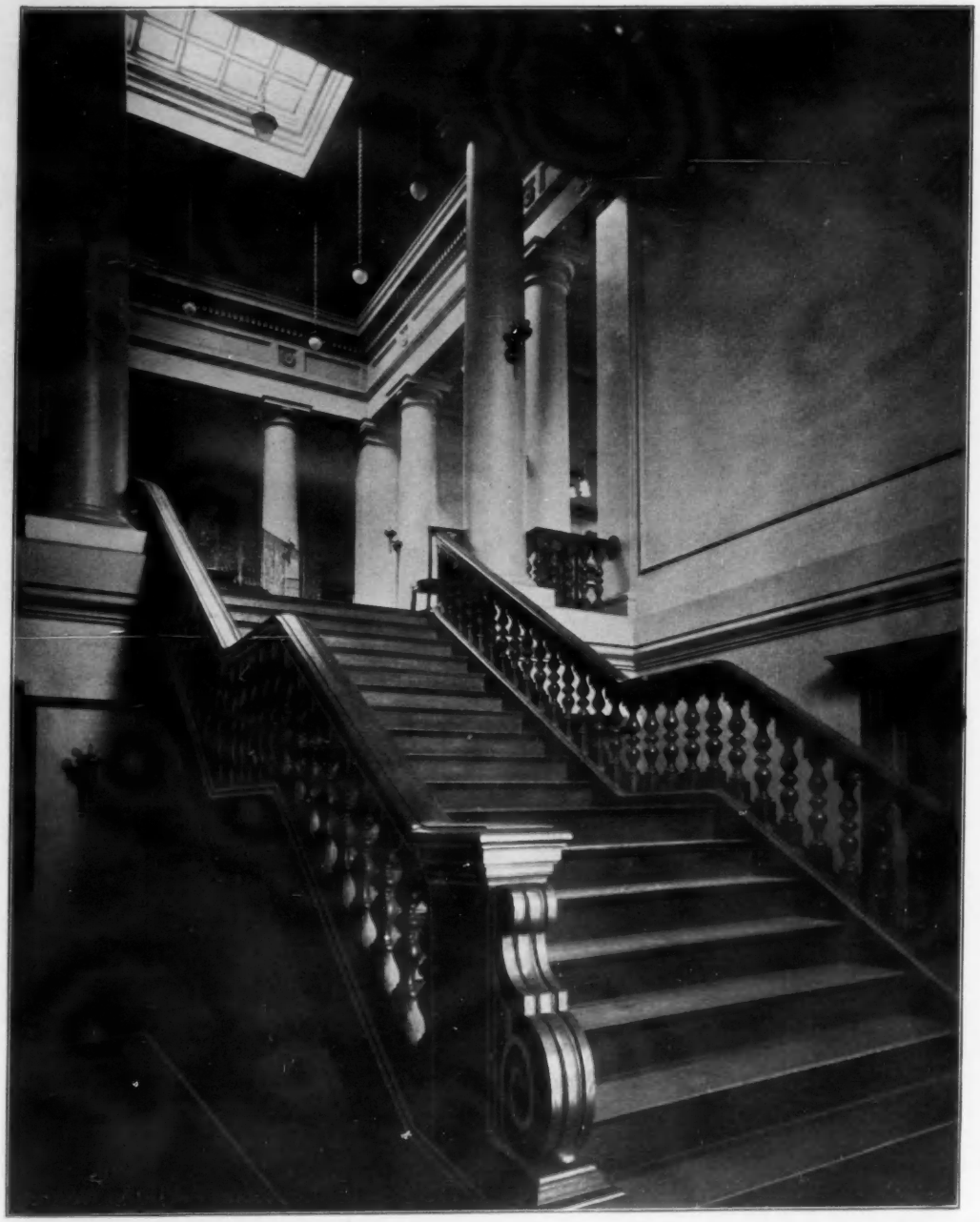
THE WETZEL BUILDING, EAST 44TH STREET, NEW YORK CITY.

(A TAILORING ESTABLISHMENT.)

HILL & STOUT, ARCHITECTS.

UNIV. OF MICH.

THE CITY CLUB, AUBURN, N. Y.
WILKINSON & MAGONIGLE, ARCHITECTS.



THE BERKELEY PUBLIC LIBRARY, BERKELEY, CAL.

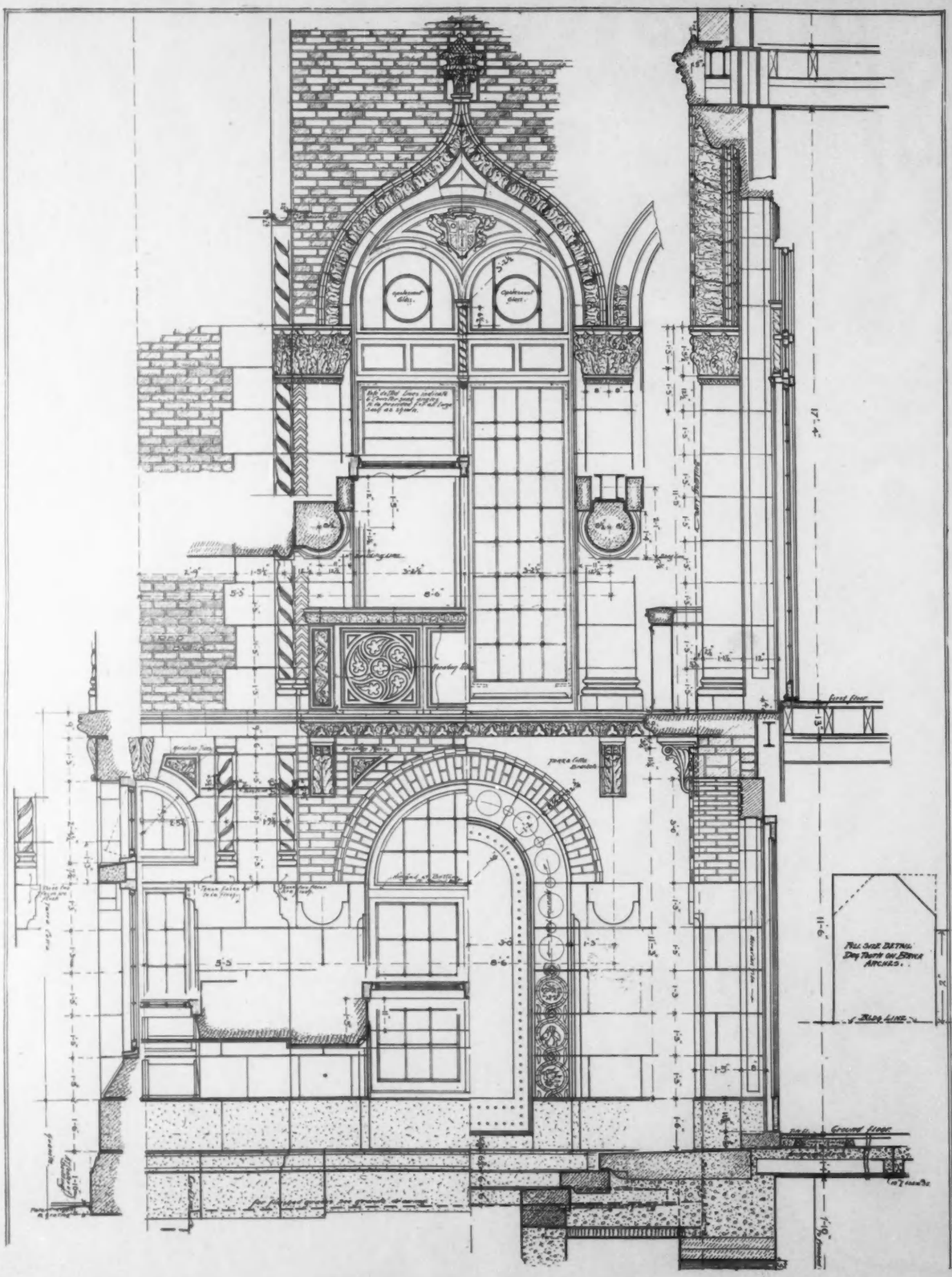
JOHN GALEN HOWARD, ARCHITECT.

THE MERCHANTS CLUB, BALTIMORE, MD.
SPERRY, YORK & SAWYER, ARCHITECTS.

UNIV. OF TOKYO

THE FINISHED PORTION OF THE CHURCH OF THE EPIPHANY WINCHESTER, MASS.

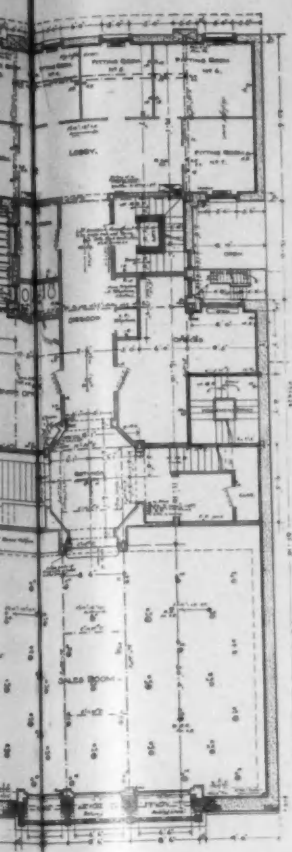
WARREN, SMITH & BISCOE, ARCHITECTS.



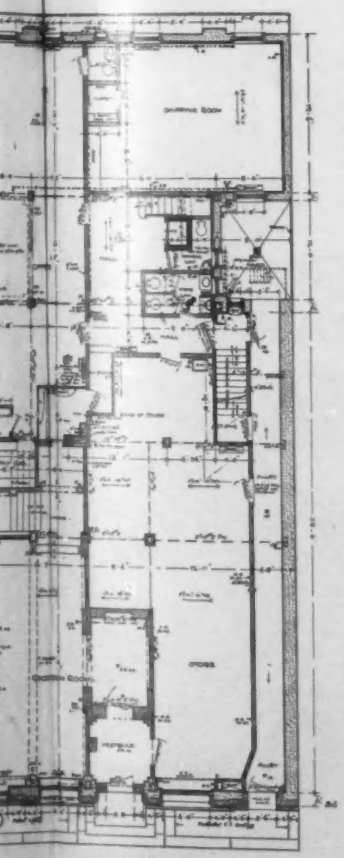
DETAIL OF ELEVATION, GROUND AND FIRST STORIES.

THE WETZEL BUILDING, EAST 44
HILL & STOUT, A

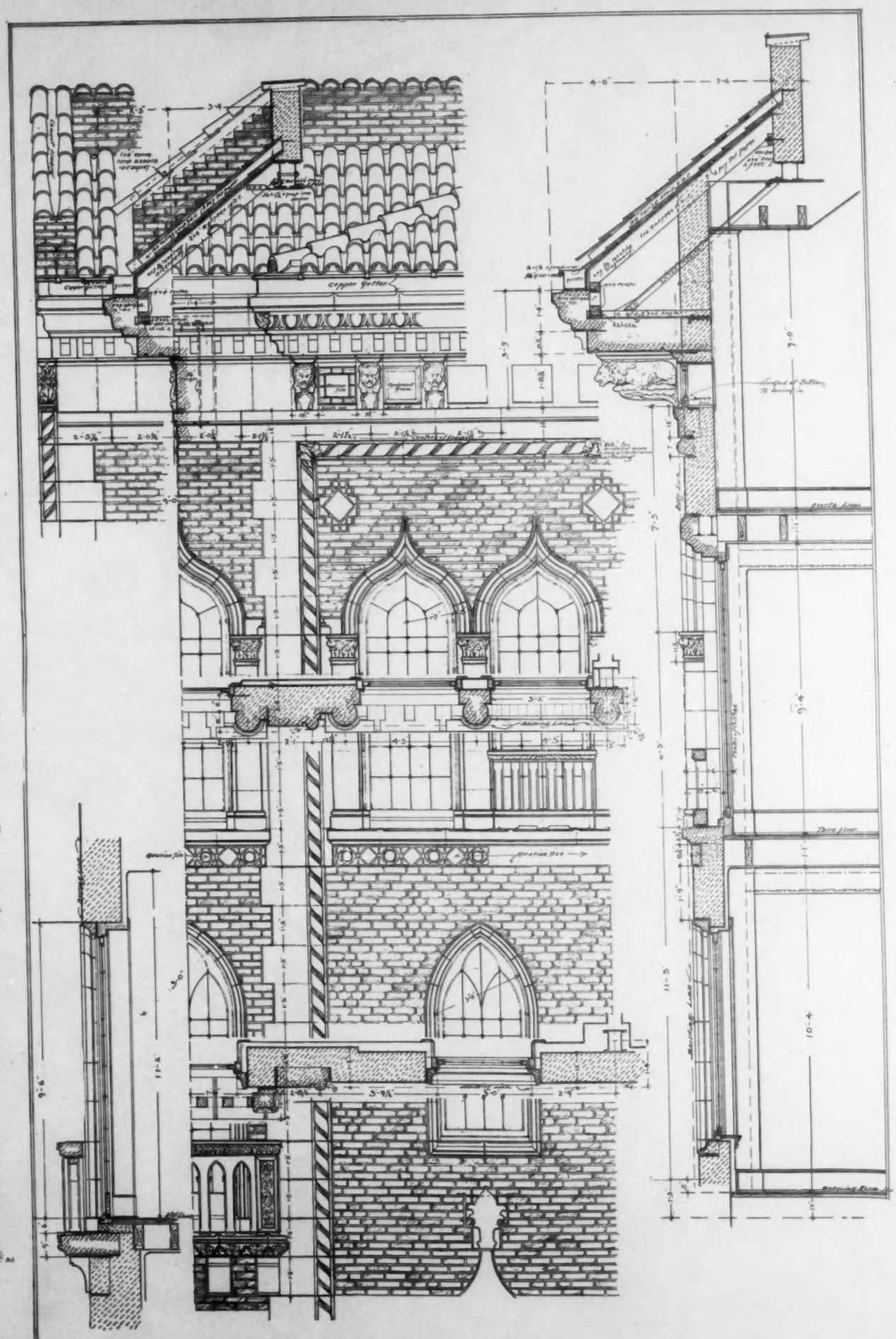
PLATES 81 and 82.



SECOND FLOOR PLAN.



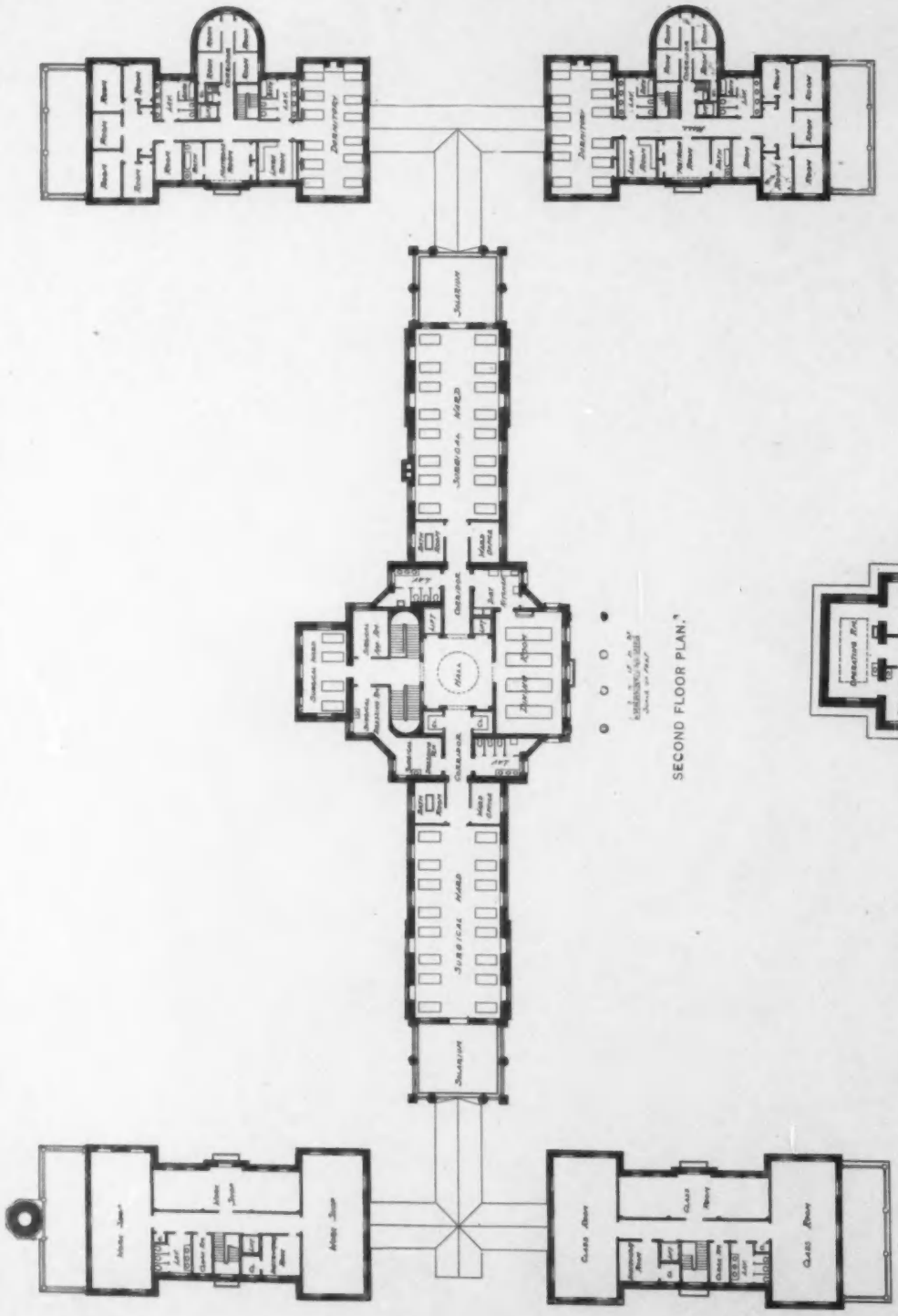
FIRST FLOOR PLAN.



DETAIL OF ELEVATION, SECOND, THIRD AND FOURTH STORIES.

EAST 44TH STREET, NEW YORK CITY.

LL & STOUT, ARCHITECTS.



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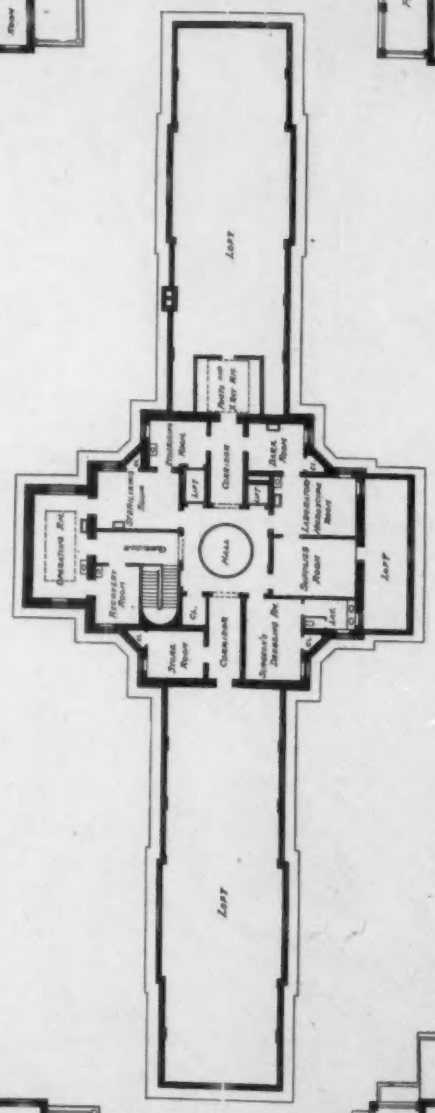

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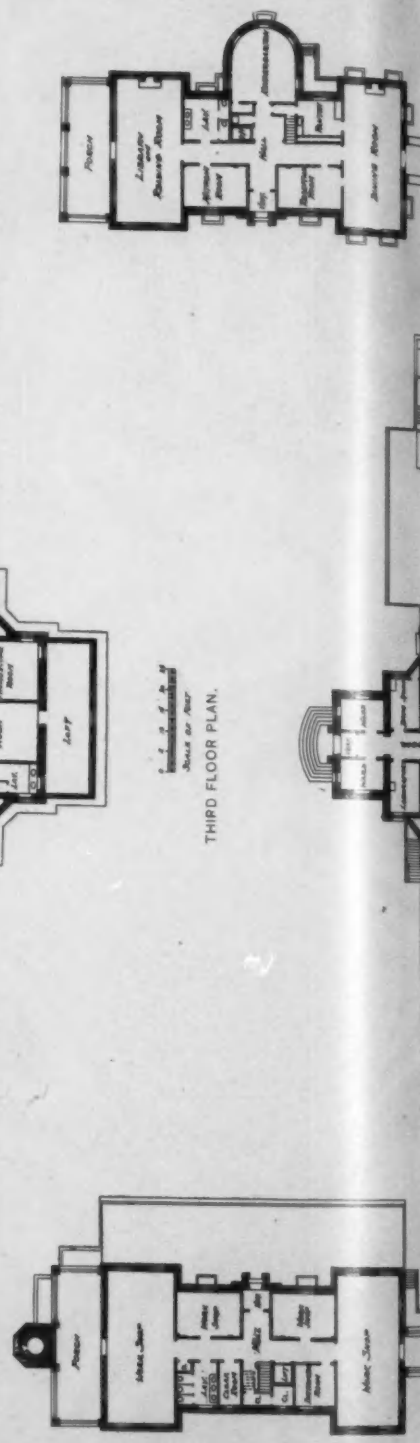

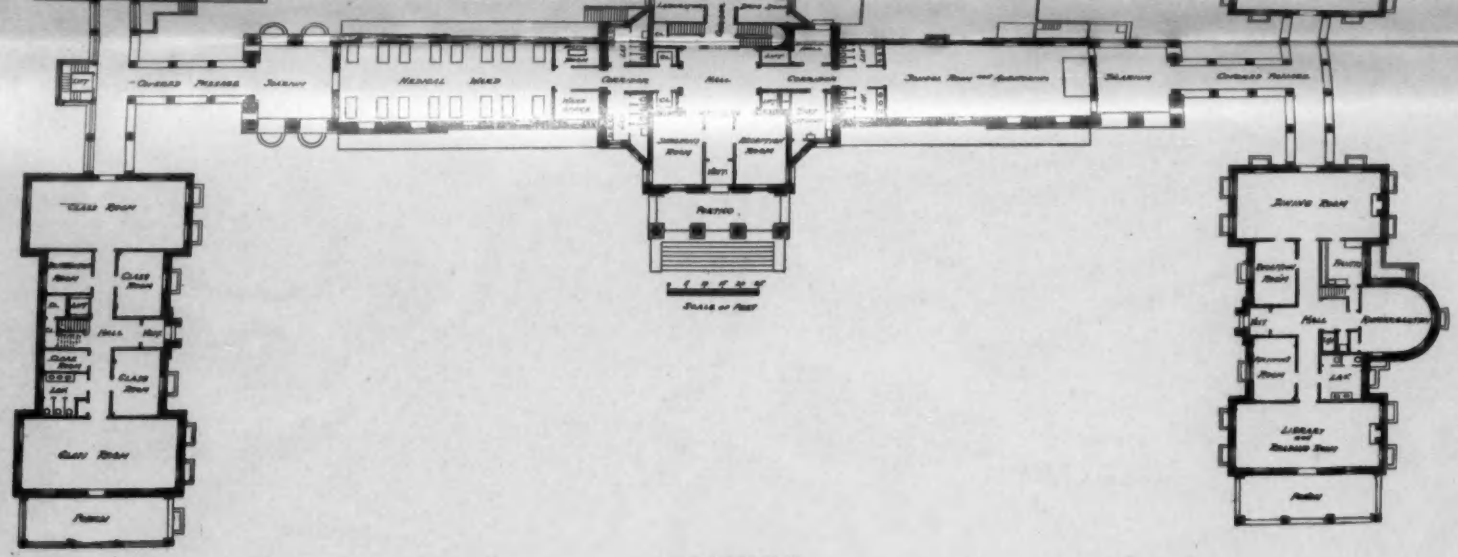

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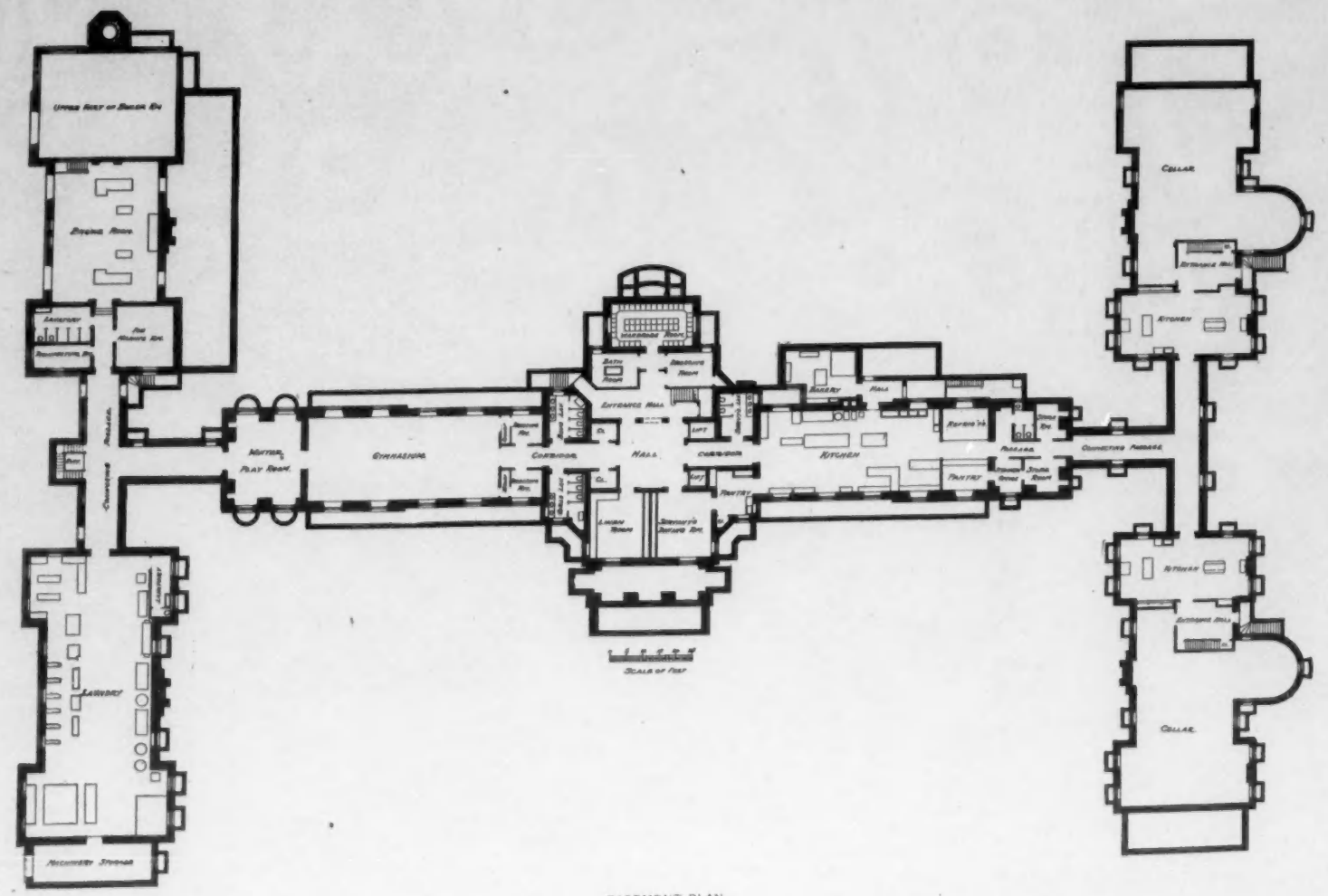
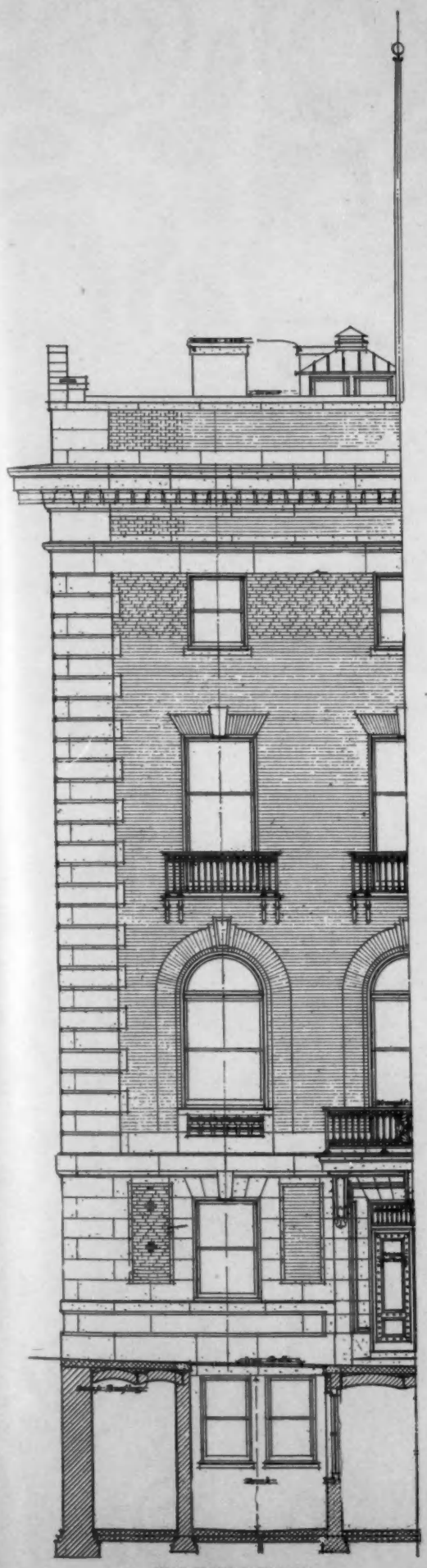


BASEMENT PLAN.

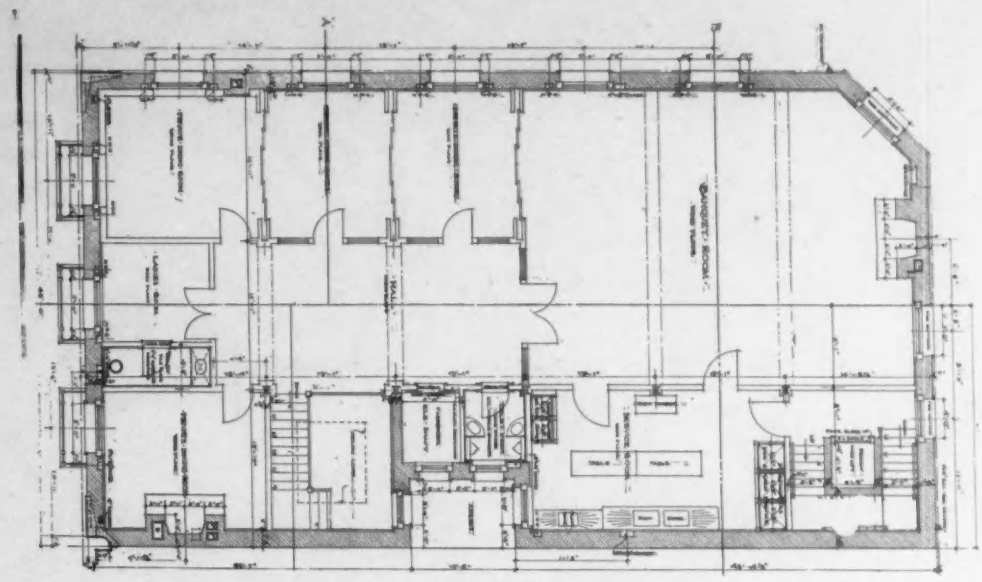
PLANS, THE WIDENER MEMORIAL TRAINING SCHOOL, LOGAN STATION, PHILADELPHIA.

(PHOTOGRAPHIC VIEWS OF THIS GROUP SHOWN IN "THE BRICKBUILDER" FOR OCTOBER, 1905.)

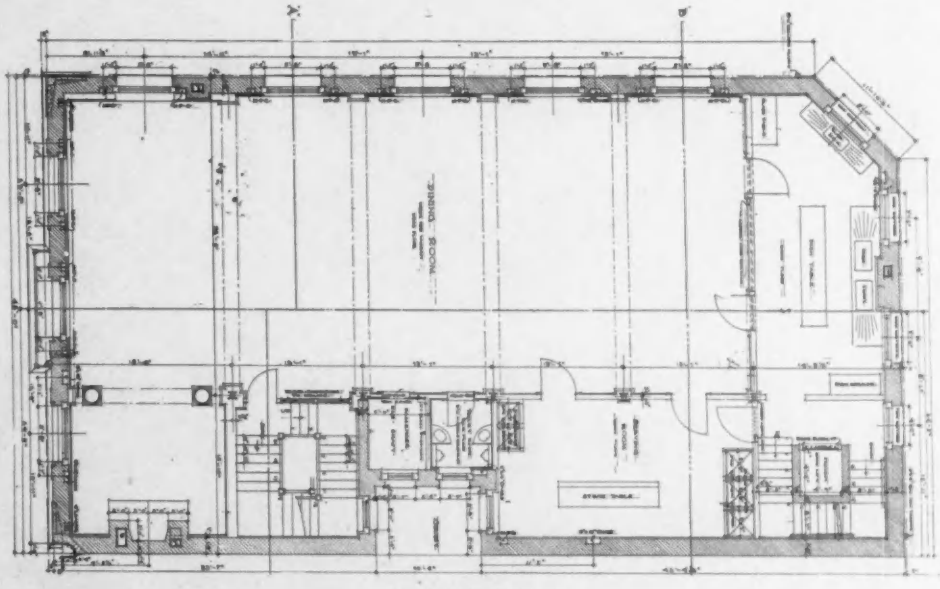
HORACE TRUMBAUER, ARCHITECT.



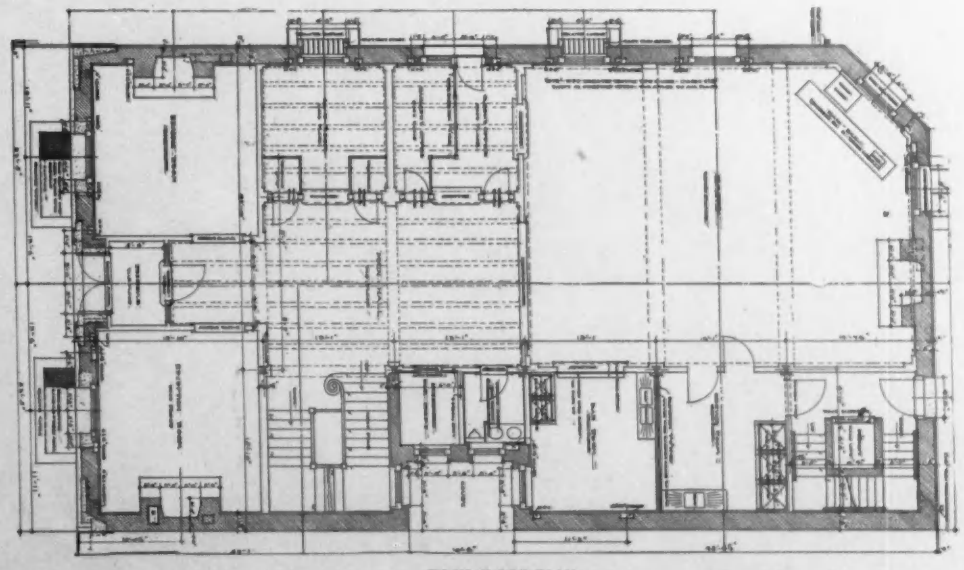
HALF FRONT ELEVATION.



THIRD FLOOR PLAN.



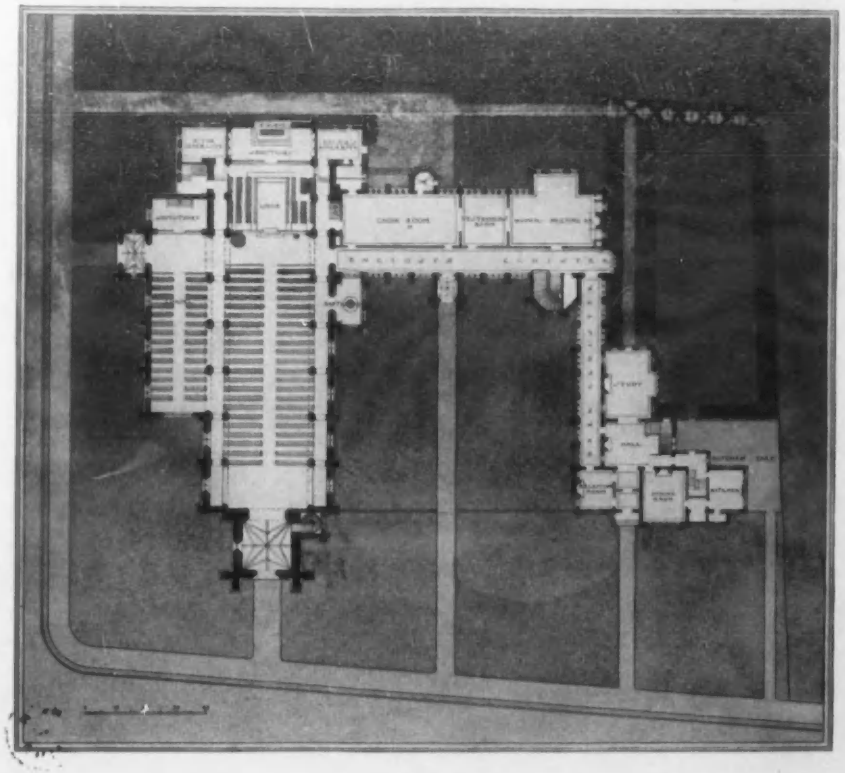
SECOND FLOOR PLAN.



FIRST FLOOR PLAN.

THE MERCHANTS CLUB, BALTIMORE, MD.

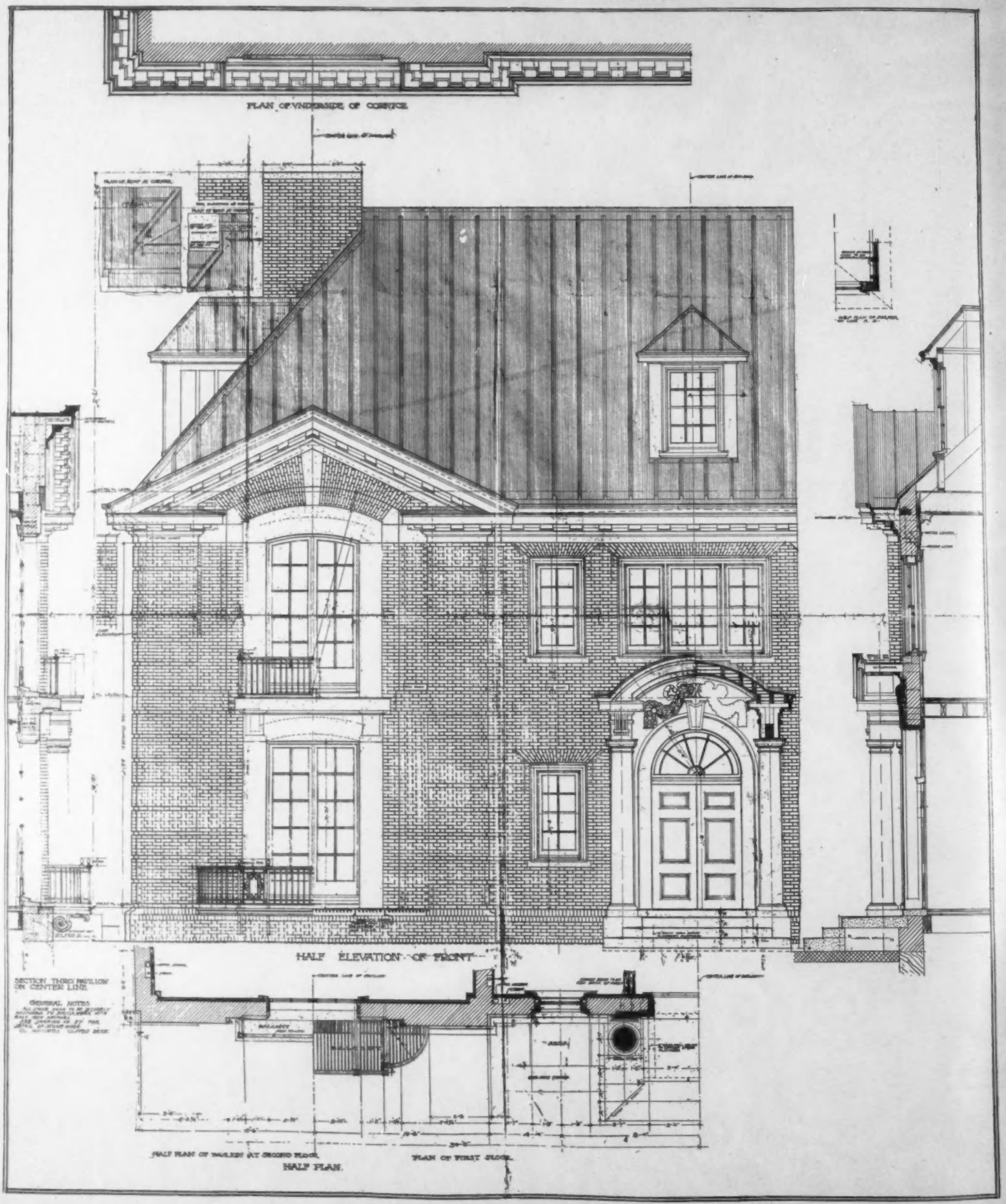
SPERRY, YORK & SAWYER, ARCHITECTS.



CHURCH OF THE EPIPHANY, WINCHESTER, MASS. WARREN, SMITH & BISCOE, ARCHITECTS.

(AS IT WILL APPEAR WHEN COMPLETED.)

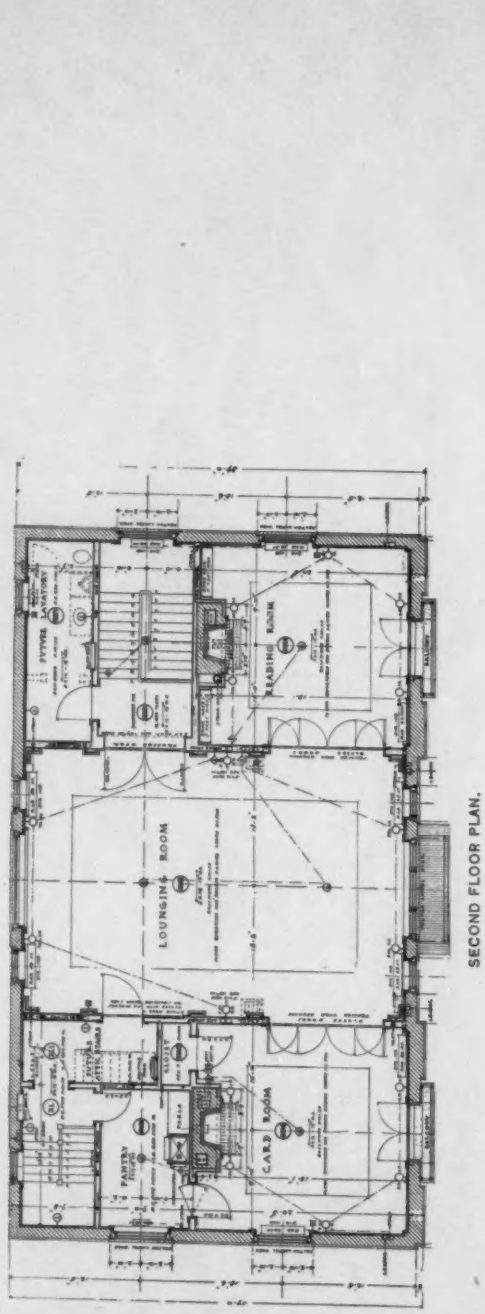
UNIV. OF MICH.



DETAIL OF THE FRONT ELEVATION.

THE CITY CLUB, AUBURN, N. Y.

WILKINSON & MAGONIGLE, ARCHITECTS.



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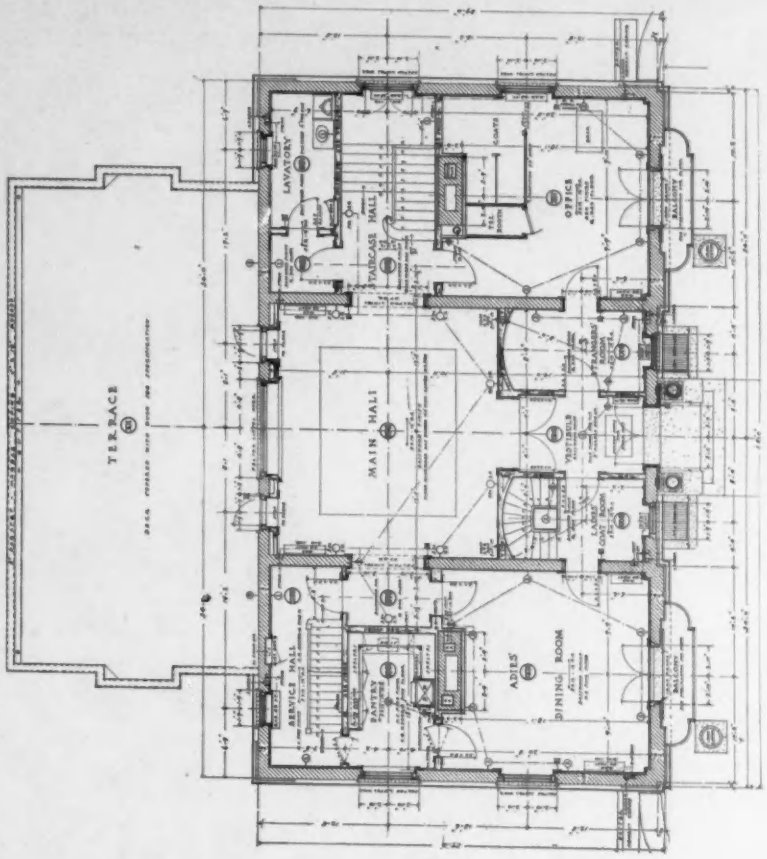

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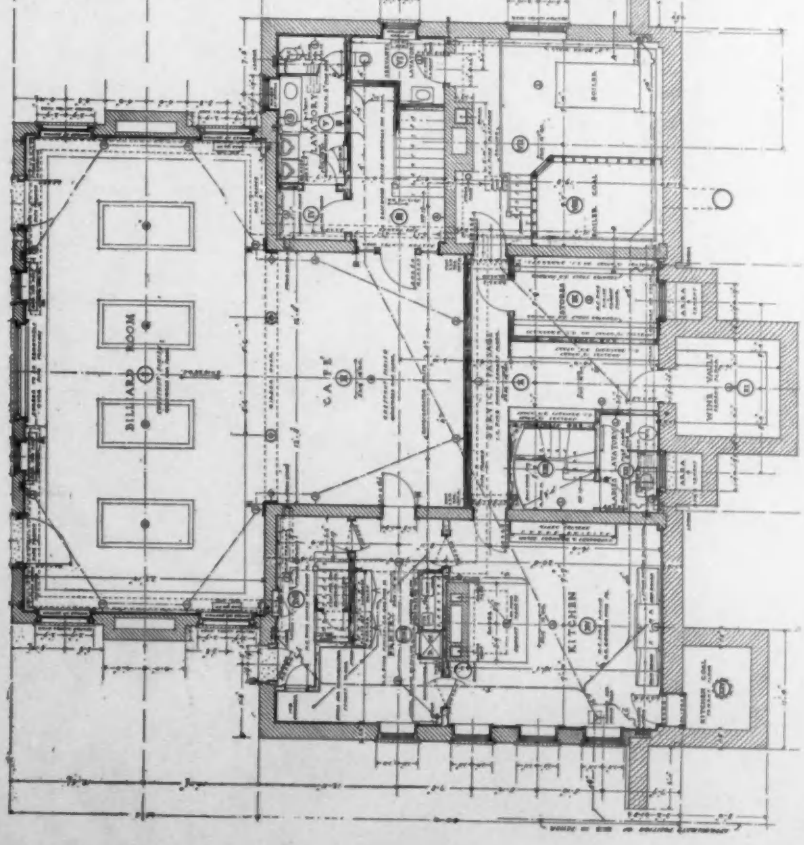

BASEMENT PLAN.

PLANS, THE CITY CLUB, AUBURN, N. Y. WILKINSON & MAGONIGLE, ARCHITECTS.